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NRL Memorandum Report 2425

Short Range Air-toAir Weapon Control Requirements

[Unclassified Title]

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MEMORANDUM

1. Background

(C) The Southeast Asia conflict has demonstrated the need for a short range air-to-air weapon. As a result, several dogfight missiles are being developed, namely, AGILE, AIM-7E-2/F and a dogfight AIM-9. The need therefore arises for a definition of the dogfight environment in terms of design requirements (so that system components can be made) for weapon control systems capable of operating in this dogfight environment.

2. Findings

(C) This study defines the dogfight environment in terms of a tracking weapon control system. It is shown that the present airborne intercept (AI) radars, and in particular their range and angle tracking circuits, are not capable of handling the dogfight weapon control problem. More importantly, however, the tracking requirements for a weapon control system are defined in terms of cumulative probability distributions.

3. R & D Implications

(C) This study shows that full-sphere tracking capability is desired for the dogfight environment. Coupled with this feature, an extremely rapid automatic lock-up and very wide-bandwidth tracking loops are required. Full-sphere tracking may require the development of a completely new type of tracking system.

4. Recommended Action

(C) It is recommended that models of the present AI radars be utilized to evaluate the recommended tracking parameters. It is further recommended that a study be undertaken to design the 360° tracking loops required for full-sphere tracking capability.

ABSTRACT

(U) The primary objective of this study is to define the dogfight environment in terms of a tracking system. The secondary objective is to apply this dogfight definition to present AI radars.

(U) This study is divided into two efforts, a determination of the primary weapon control requirements and a parameter interaction study. The purpose of the primary weapon control requirements study is to define the dogfight environment and to investigate the relationship of aircraft, tactics, weapons, and the available data base. The purpose of the parameter interaction study is to define the dogfight environment more precisely in terms of tracking loop requirements, clutter problems, and glint.

PROBLEM STATUS

(U) The two studies, the primary weapon control requirement study and the parameter interaction study, have been completed. Work, however, continues on interpretation of the data developed during the parameter interaction study.

(U) Tracking models for AI radar are being developed to determine the effects of the recommended tracking parameters on these radars.

AUTHORIZATION

Short Range Weapon Control Compatibility with AWG-10/AWG-14
NRL Problem 53D01-03.308
A510-5108/652-4/1510-00-31

F-14/AWG-9 Weapon Systems Analysis
NRL Problem 53D01-03.308
A510-5108/652-F/1W16-08-0000

Airborne Intercept Weapon Control
NRL Problem 53D01-03.323
A360-5333/652B/1F17-342-603

Guided Missile AIM-7F Simulation Studies
NRL Problem 53D01-03.311
A510-5108/652-F/1W16-14-0000

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I. INTRODUCTION

A. Background

(C) In the past, Naval airborne intercept (AI) radars were designed to intercept non-maneuvering bomber targets. Since these radars were designed to detect and track such targets at long range, they required a high power but relatively little angular coverage. Further, since these bomber targets have low maneuvering capabilities, the radars were designed with low tracking rates and accelerations. With these restrictions these radars were severely limited in their short-range air-to-air capability.

(C) The Southeast Asian conflict has shown that superiority in the short-range air-to-air (dogfight) engagement is a critical requirement for today's Naval aircraft. Many reports attest to this fact, the best known being the "Red Baron" (1) reports.

(C) A short-range weapon is required in a dogfight engagement. To fulfill this need, a dogfight missile (AGILE) is currently being developed by The Naval Weapons Center (NWC), China Lake (Refs. 2,3,4,5, 6,7,8). In addition, modifications are being made to the AIM-7 Sparrow-III and the AIM-9 Sidewinder missiles to provide a dogfight capability.

(C) With the development of dogfight missiles, the need for a short range air-to-air weapon control system (WCS) becomes evident. The nature of the dogfight environment requires that this WCS be quite different from those of the present AI radars. The target, instead of being a slowly maneuvering bomber at long range, is now a highly maneuverable fighter at close range.

B. Program Objectives

(U) The primary objective of this study is to accurately define the dogfight environment in terms of the tracking requirements for a variety of WCS. Many flight tests, computer simulations, and manned simulations have been performed by many people to gather data on the dogfight environment. For the purpose of this report, one of the manned simulations and one of the flight tests were used to determine the tracking requirements. The influence of specific weapons and their associated kill probabilities are important but fortunately not critical to this study.

(U) The generic types of tracking systems investigated in this study are listed below.

1. A typical AI radar $\pm60^{\circ}$ off the nose in azimuth and elevation.

2. A tail warning/tracking system having a coverage $\pm60^{\circ}$ off the tail in azimuth and elevation.

3. A full sphere coverage system.

(U) Further objectives of this study pertain directly to problems associated with clutter and glint.

C. Analytical Approach

1. (U) This study made use of existing dogfight data from the NADC manned simulation and from VX-4 flight tests.

a. The NADC simulation consisted of two cockpits in which two pilots simulated a dogfight while computers provided the aircraft dynamics. Pertinent details of the simulation are given below. Full details may be found in Refs. 9 and 10.

i. Each aircraft was modeled with 6 by 4 degrees of freedom.

ii. Each dogfight originated at 15,000 feet altitude with the aircraft abeam of each other and separated by 2 nm.

iii. Three friendly and two enemy type aircraft were simulated.

iv. Two weapon mixes were simulated for the friendly aircraft.

(A) A short range missile with an all-aspect and a 45° off-boresight capability.

(B) Guns and Sidewinder

v. 72 dogfights with a given aircraft and weapon mix made up one situation for study.

vi. Pilot presentation was a 16" CRT providing a forward hemisphere field of view with the presentation slewable to allow full cockpit visibility. Pilot blackout was simulated by dimming the display.

vii. The trained pilots were selected from tactics instructors on the F-4 and F-8 aircraft.

viii. Pilots were rotated every 6 encounters.

b. The VX-4 flight test data were obtained from a simulated combat of two F-4 aircraft. Pertinent characteristics of the VX-4 data are:

i. All aircraft position data were obtained by beacon tracking of the aircraft with two FPS-16 ground-based radars.

ii. For safety, a minimum altitude of 5,000 feet was required.

iii. Approximately 800 seconds of useful data were obtained.

iv. The pilots were flying gun/Sidewinder tactics.

2. To achieve a precise definition of the dogfight environment, the study was divided into phases so that the results of each phase could be thoroughly understood and applied in the following phases. This study is divided into three phases, with the results of the first two phases being the subject of this report.

(U) The first phase, the primary weapon control requirement study, is designed to assess the effects of the various aircraft, the tactics, and the two simulations upon the short-range WCS requirement. The specific areas of interest for the first phase are the coverage requirement, the maximum range requirement, and the tracking requirements as a function of target angular position.

(U) The second phase is the parameter interaction study. Based upon results of the first phase, data were selected for this detailed study of tracking loop requirements, clutter, and glint. The areas of investigation were a forward tracker, a rearward tracker, and a full sphere tracker.

II. PRIMARY WEAPONS CONTROL REQUIREMENTS

A. Program Description

(U) Approximately 157,000 seconds of data are available from the two sources. A description of the basic computer program to reduce these data is contained in Appendix A. This basic program required extensive modification before use on the VX-4 data.

(C) Table 1 lists the simulation, the aircraft type, and the tactics by data tape number. As will be seen by the data presented later in this Section, the results, for the parameters of interest, are relatively independent of aircraft type. For this reason, and at the request of NADC, the aircraft are designated by letters. Specifically, three friendly aircraft types, designated A, B or C were used in the NADC simulations. The F-4 aircraft used in the VX-4 flight tests are designated by F.

TABLE 1.

Tape Number	Simulation	Fighter 1 (Friendly)	Fighter 2 (Enemy)	Fighter 1 Tactics	Fighter 2 Tactics
1	NADC	C	E	SRAAM*	G/S
2	NADC	C	D	G/S**	G/S
3	NADC	A	E	G/S	G/S
4	NADC	A	D	SRAAM	G/S
5	NADC	B	D	SRAAM	G/S
6	NADC	B	E	G/S	G/S
101	VX-4	F	F	G/S	G/S

* Short Range Air-To-Air Missile
** Guns/Sidewinder

(U) The data reduction for this phase of the study was carried out in three parts, (1) azimuth vs elevation of the target vs frequency of occurrence, (2) angle off boresight vs range of the target vs frequency of occurrence, and (3) tracking rates and accelerations as a function of relative target position.

1. Azimuth vs Elevation of the Target vs Frequency of Occurrence

(U) The results of this study are shown in Figs. A-2 to A-15, Appendix A. The purpose of these plots is to determine the most

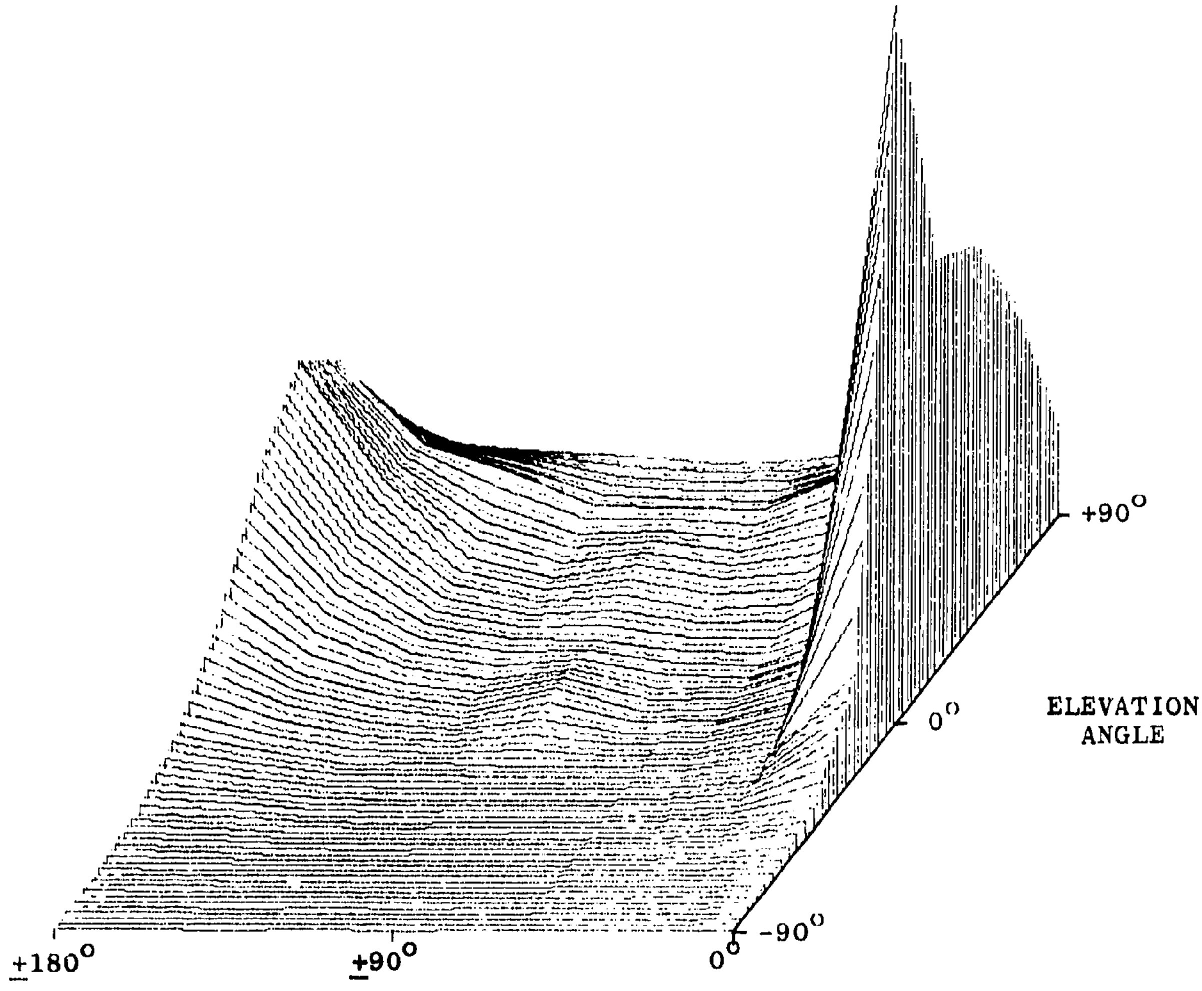


FIG. 1 - TAPE 1 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

likely positions of the target with respect to the fighter in aircraft coordinates. Figure 1, an example of these plots, was computer generated from tabulated data with a linear interpolation between the azimuth-elevation points. Because of this interpolation, these plots are qualitative and are presented only for visualization purposes. Quantitative data are given later in this report.

(C) Figure 1 is a three-dimensional plot of target position with respect to the fighter (Fighter 1 in this case) as experienced in 72 three-minute encounters. The azimuth position of the target with respect to the fighter is plotted along the X-axis (180° is the tail-on position and 0° is head-on). The corresponding position of the target in elevation with respect to the fighter is plotted along the Y-axis. Directly underneath the fighter is designated -90° and directly overhead is $+90^{\circ}$. The frequency of occurrence during the 72 three minute encounters is plotted along the Z-axis. It can be seen that the target is below the fighter a very small portion of the time. Further, the target is within approximately 30° in azimuth off the nose and/or tail of the fighter a majority of the time. The plots for all the aircraft show the same general trend with wide variation in the amplitude of forward and rearward peaks.

2. Angle Off Boresight vs Range to the Target vs Frequency of Occurrence.

(U) The results of this study are shown in Fig. A-16 to A-29, Appendix A. These plots portray the dependence of range on angle off boresight. In the collection of the data, the cell sizes (segment of range at a segment of angle off boresight) were not chosen to be equal, which makes the interpretation of these plots difficult.

(C) Referring to Fig. 2, which is an example, it can be noted that the distribution of range is independent of angle off boresight. This feature, noted in all the data, can be seen by the ridges and valleys which are constant in range, regardless of angle.

3. Tracking Rates and Accelerations as a Function of Relative Target Position.

(U) The purpose of this portion of the study was to obtain an estimate of the tracking requirements as a function of target position with respect to the fighter. Figure 3 depicts the various gimbal angle zones which were investigated. The total sphere around the fighter aircraft is divided into a top and a bottom hemisphere. Each hemisphere is divided into forward, rearward, side, and top (bottom) zones of coverage. The zones are grouped in the following manner:

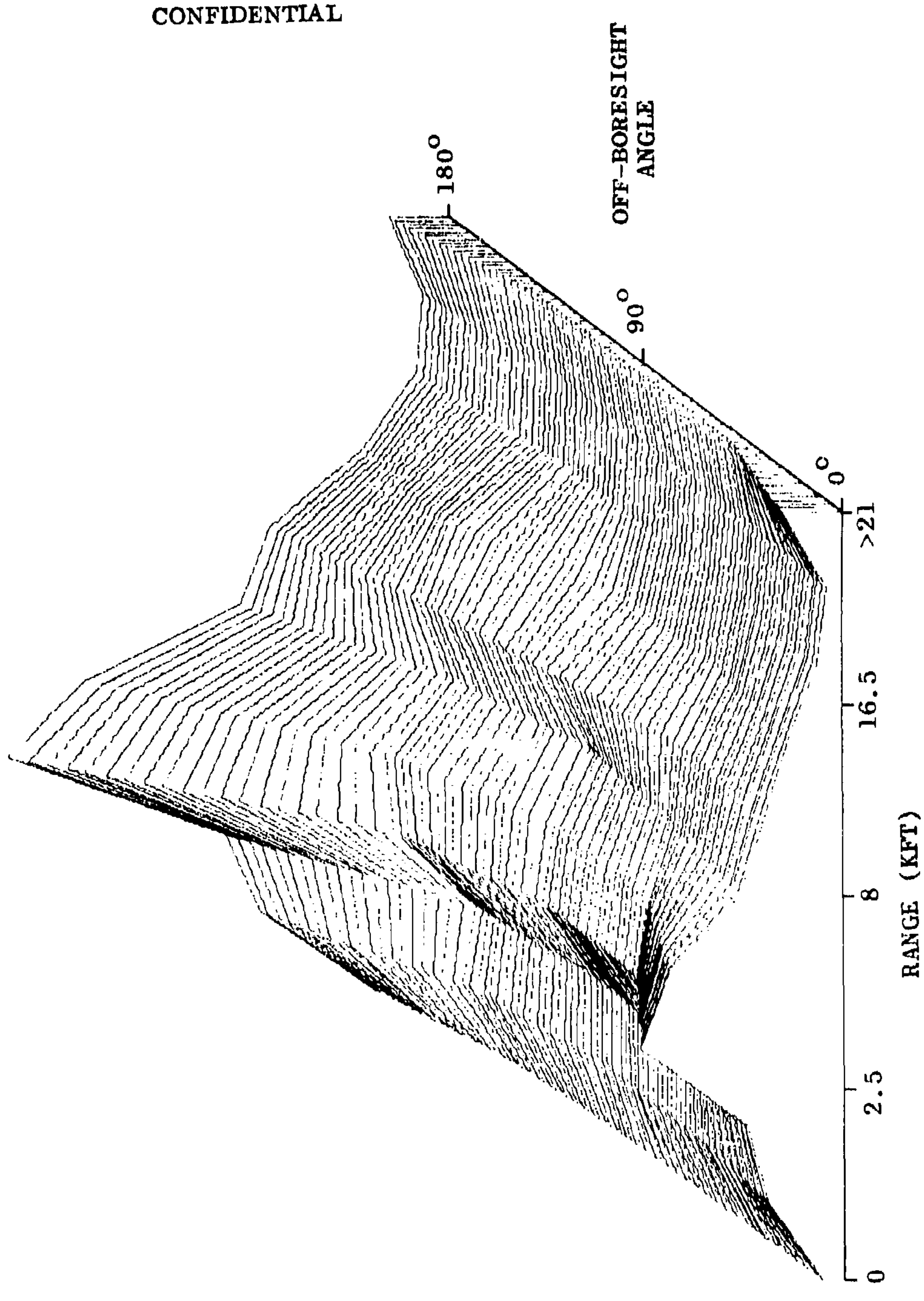
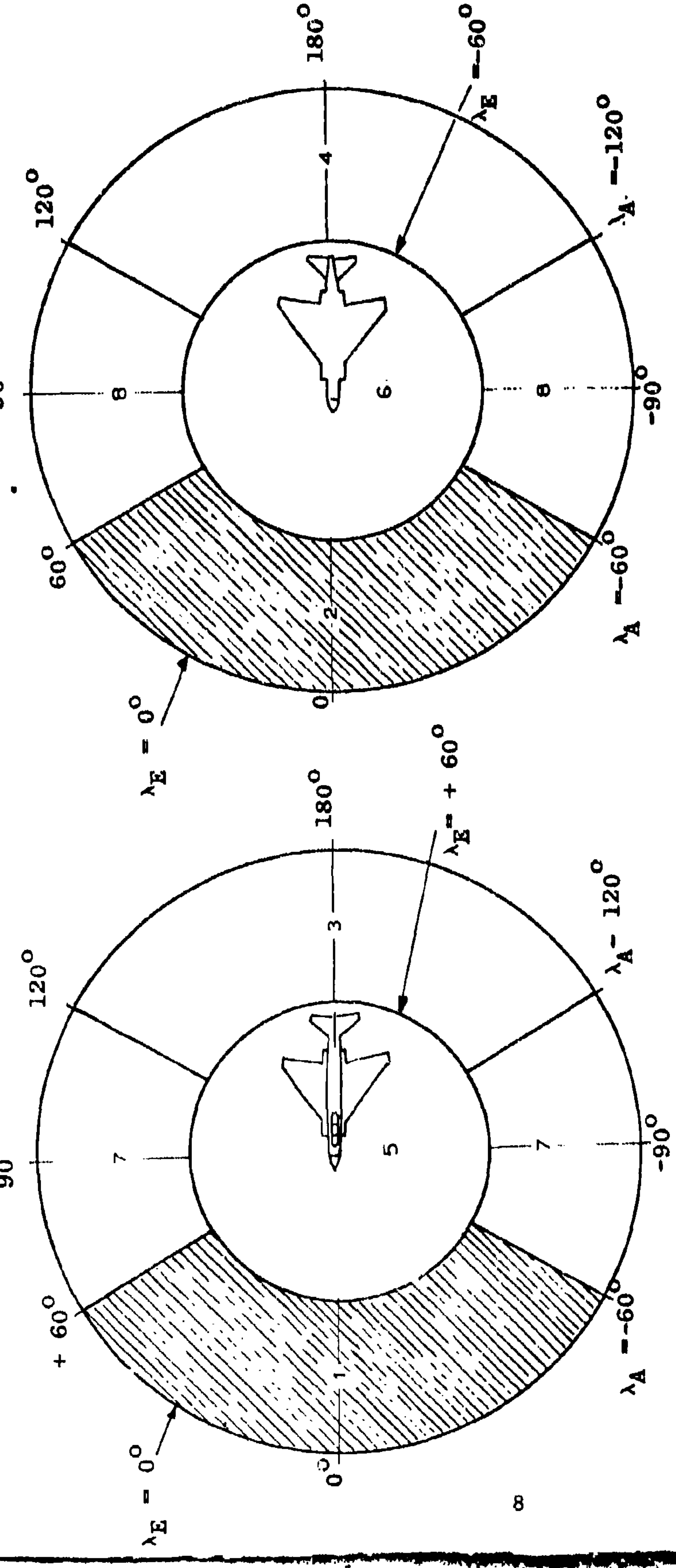


FIG. 2 - TAPE 1 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.



BOTTOM HEMISPHERE

TOP HEMISPHERE

NOTE - SHADED AREA REPRESENTS CONVENTIONAL RADAR COVERAGE

FIG. 3 - DEFINITION OF AZIMUTH (λ_A) AND ELEVATION (λ_E) GIMBAL ANGLE ZONES.

a. Conventional AI radar coverage - zones 1 and 2.
b. Rearward coverage - zones 3 and 4.
c. Top and bottom coverage - zones 5 and 6.
d. Side coverage - zones 7 and 8.

(U) The results of the data reductions are presented in Figs. A-30 to A-125, Appendix A, as bar graphs, with fourteen bars depicting the various aircraft, weapons, and simulations as shown in Table 1. The parameters listed below are of specific interest in the design of the tracking loops for a weapon control system.

a. The percent of time that the target was in a particular gimbal angle zone. This assesses the importance of the various zones.
b. The statistics of range, Figures A-38 to A-45 (11).
c. Range rate, Figures A-46 to A-53.
d. Range acceleration, Figures A-54 to A-61.
e. Azimuth line-of-sight rate, Figures A-62 to A-69.
f. Azimuth line-of-sight acceleration, Figures A-70 to A-77.
g. Elevation line-of-sight rate, Figures A-78 to A-85.
h. Elevation line-of-sight acceleration, Figures A-86 to A-93.
i. Azimuth gimbal rate, Figures A-94 to A-101.
j. Azimuth gimbal acceleration, Figures A-102 to A-109.
k. Elevation gimbal rate, Figures A-110 to A-117.
l. Elevation gimbal acceleration, Figures A-118 to A-125.

(U) Using Fig. 4 as an example, the average value of all range rate values experienced during 72 three minute encounters is shown as a line through the shaded area of each bar. The 2σ values (95%) are shown as the shaded area in each bar and the minimum and maximum values are shown as the full extent of each bar. In order to accurately portray these values, a log scale is used on the ordinate axis. The use of the log scale expanded the data about zero to show the average and 2σ values, and contracted the data to show minimum and maximum values.

B. Data Verification

(C) In general, the VX-4 and the NADC data are in close agreement. This can be seen in Figs. A-30 to A-125. Points of disagreement are listed below.

1. In the range plots, shown in Figs. A-46 to A-53, the minimum range in the VX-4 data is greater than in the NADC data. In the manned NADC simulation, the fear of aircraft collision does not exist, and therefore, for range, the VX-4 data are more accurate. Consequently,

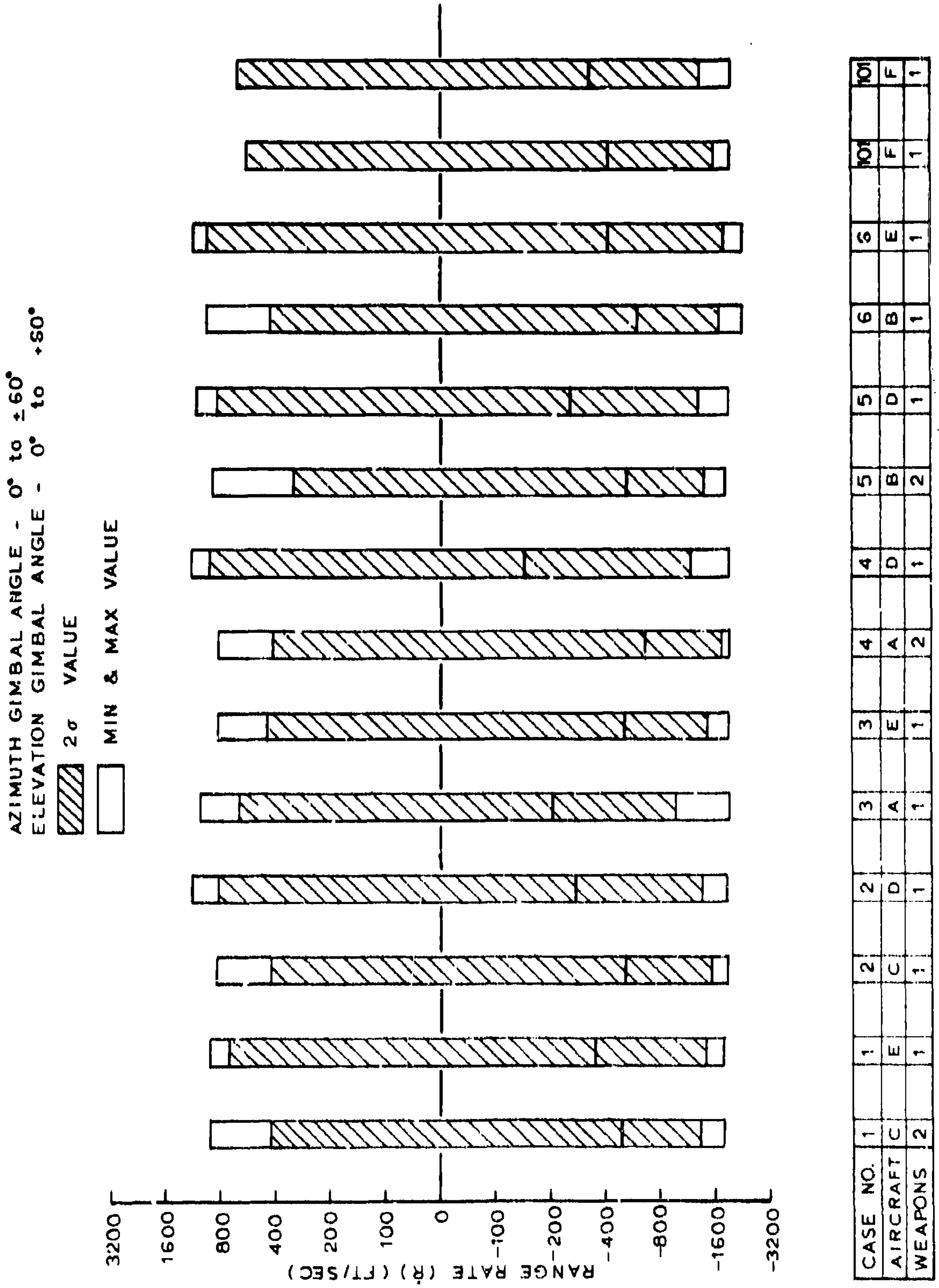


FIG. 4 - SUMMARY OF RANGE RATE.

conclusions drawn from this entire study will neglect some of the short-range NADC data.

2. The accelerations (range, line-of-sight, and angular) shown in Figs. A-70 to A-125 are greater in the VX-4 data. The VX-4 data, based on ground-based radar tracking information, are very noisy, and differentiations amplify the noise and render the accelerations suspect. For this reason the VX-4 data were not used for analyzing accelerations.

3. The amount of VX-4 data is small compared to the amount of NADC data. At times, there were insufficient VX-4 data from which to develop meaningful statistics.

For the above reasons, further analyses in this program will use NADC data with limits being imposed by the VX-4 data.

(C) A direct analysis of the differences in WCS requirements brought about by aircraft type was a goal. However, of the combinations possible from 3 friendly and 2 enemy aircraft, and 2 weapon mixes, only six were available for analysis. But, in general, the data reflect little direct change with the aircraft type with the exception of the relative importance of tail and forward coverage. For this reason, the 2 σ values for the worst case are cited in the conclusions of this phase of the report.

(U) In Figs. A-2, A-6, and A-12, it can be seen that the friendly aircraft have an advantage over the same enemy aircraft, fighter E. This was the only discernible effect of influence by aircraft type.

C. Coverage Requirement

(C) The WCS coverage requirements are shown graphically in Section A-2 of Appendix A. As might be expected, the upper hemisphere is extremely important, as is the forward zone of approximately $\pm 30^\circ$ azimuth. Also, it is important to be able to track the target in the off tail zone. This indicates a need for the upper hemisphere, nose, and tail coverage for the weapon control system. A trade off based on probability of occurrence for azimuth and elevation coverage can be made with the use of Fig. 5. Although the relative weights on the tail and nose vary among aircraft types, the general distribution is independent of aircraft type.

D. Tracking Parameter Variations as a Function of Coverage Areas

(U) For the reporting of the results of this section, the area around the fighter aircraft is broken into five zones:

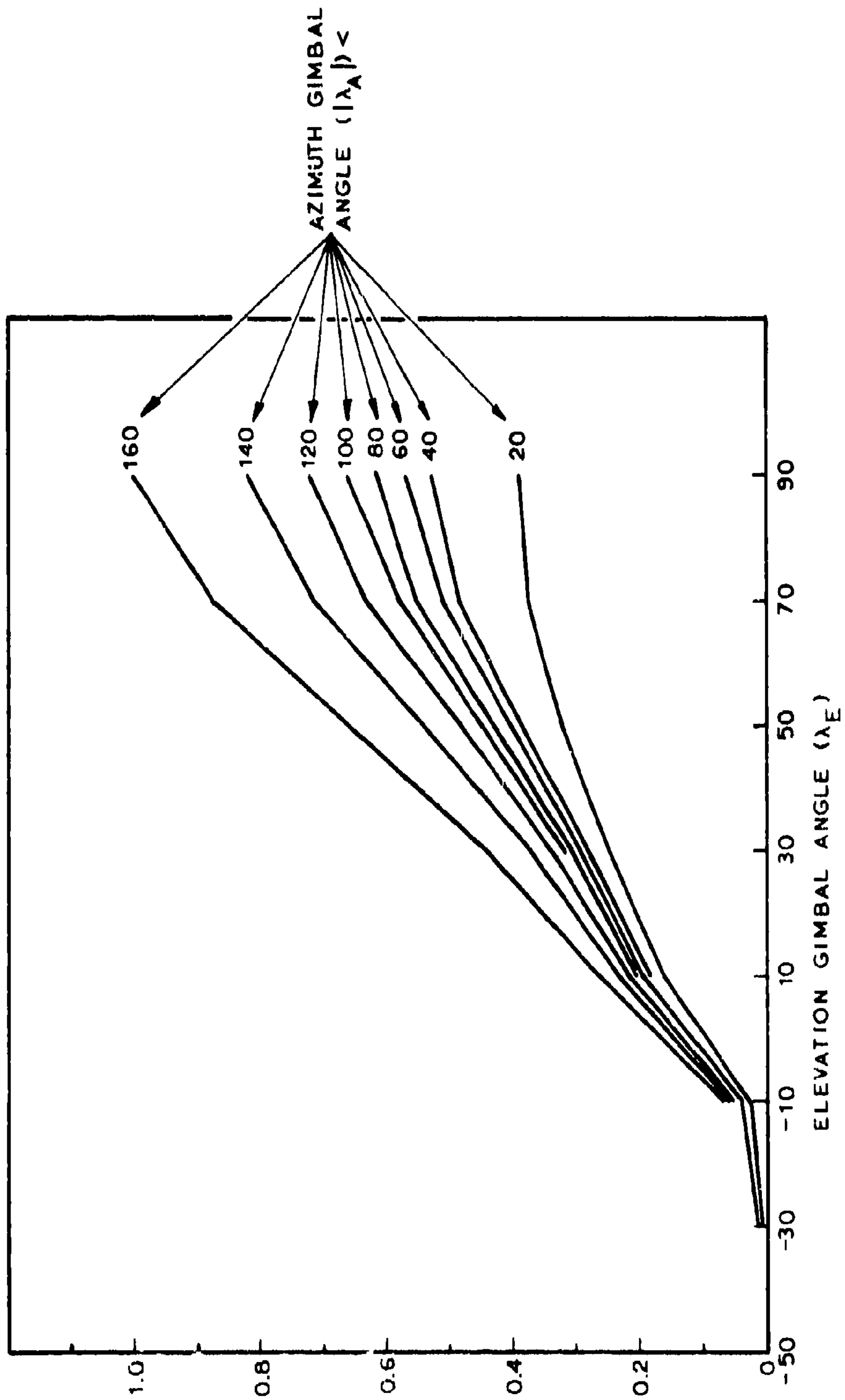


FIG. 5 - CUMULATIVE PROBABILITY DISTRIBUTION OF ELEVATION GIMBAL ANGLE FOR SEVERAL VALUES OF AZIMUTH GIMBAL ANGLE.

1. The forward $\pm 60^{\circ}$ in azimuth and elevation - nose sector.
2. The rear $\pm 60^{\circ}$ in azimuth and elevation - tail sector.
3. The top and bottom ± 30 cones - top and bottom cones.
4. The side sectors $\pm 60^{\circ}$ in elevation and between $\pm 60^{\circ}$ and $\pm 120^{\circ}$ azimuth - side sectors.
5. Total sphere coverage.

(U) The values quoted in Table 2 are maxima of the 2σ values (95% based upon normal distribution assumption) except for the total sphere coverage case, for which maximum and minimum are quoted. The bottom side sector and the bottom tail sector were not used in the determination of rates and accelerations for the table because of their low frequency of occurrence. Their small sample size makes the normal distribution assumption less valid; therefore, confidence is reduced in the 2σ value containing 95% for the data. It is also important to note that the data in Section A-4 of Appendix A is divided into 8 sectors, which differs from the division of data shown in Table 2.

TABLE 2 - TRACKING PARAMETER VARIATIONS AS A FUNCTION OF COVERAGE AREA.

PARAMETER	COVERAGE AREA				
	NOSE SECTOR (2σ)	TAIL SECTOR (2σ)	TOP & BOTTOM CONE (2σ)	SIDE SECTORS (2σ)	FULL SPHERE (maximums)
% OF TIME IN COVERAGE AREA	44	28	23	5	100
RANGE (FT)	30,000	37,000	28,000	32,000	50,000
RANGE RATE (FT/SEC)	- 2,100 to + 1,000	- 1,000 to + 2,100	- 1,300 to + 1,600	- 1,300 to + 1,500	± 2,400
RANGE ACCELERATION (FT/SEC^2)	400	360	670	800	3,000
AZIMUTH LINE OF SIGHT RATE (DEG/SEC)	40	66	28	85	1,300
AZIMUTH LINE OF SIGHT ACCELERATION (DEG/SEC^2)	36	68	38	102	1,300
ELEVATION LINE OF SIGHT RATE (DEG/SEC)	41	45	31	38	1,140
ELEVATION LINE OF SIGHT ACCELERATION (DEG/SEC^2)	37	51	40	45	1,130
AZIMUTH GIMBAL RATE (DEG/SEC)	51	82	450	95	12,000
AZIMUTH GIMBAL ACCELERATION (SEG/SEC^2)	47	88	580	140	12,000
ELEVATION GIMBAL RATE (DEG/SEC)	47	46	37	68	12,000
ELEVATION GIMBAL ACCELERATION (DEG/SEC^2)	51	55	49	76	930

III. PARAMETER INTERACTION STUDY

A. Program Description

(U) In Section II of this report, the mean plus or minus 2σ values for the tracking parameters were given. In order to assign a probability to these numbers, a distribution must be assumed. If a normal distribution is assumed, then the average plus 2σ yields a 95% probability. In this section of the report, the actual distributions of the parameters were determined and the actual probabilities found. In addition, the actual distribution of two related parameters were determined thus enabling the determination of a single probability for two related parameters, such as the range rate and range acceleration.

(C) The basic computer program description is contained in Appendix B. This program has the capability of computing a two-variable cumulative distribution with average and 1σ of the dwell time for any parameters of interest. The program has the further capability of calculating a frequency distribution in the third dimension and/or collecting the data by gimbal angle off nose and off tail of the fighter aircraft. Further restrictions such as minimum range, maximum range, etc., can be applied to the data.

(U) Tape 1 was used for this study because by the primary weapon control study it was shown to be a good representative of the dogfight engagement. For the parameters of interest, the 2σ values do vary somewhat for the various tapes (Appendix A). As an example of the continuing verification of the results of the parameter interaction study, tape 3 in addition to tape 1 was used in analysis of the tracking parameters. A comparison of the results from these two tapes showed that for the primary area of interest (the 90% to 99% probability of track), the results were the same. In the lower probability of track region, tape 3 showed a higher rate and acceleration requirement than tape 1.

(U) A conclusion to be drawn by the comparison of the two tapes is that for the 90% to 99% probability of track the results of tape 1 are valid for all the data tapes. The differences in the 2σ values between tapes arises because of the assumption of a normal distribution made for the primary weapon control requirements study.

(U) The following is an explanation of three basic types of parameter interactions completed under this study. It should be noted that the basic reduction method is not restricted to the interactions accomplished. An example of the flexibility of this program was a study to analyze the altitude clutter as a function of range and altitude while in the vertical scan lock-up mode of the AWG-9 radar.

1. Tracking Parameter Interactions

(U) The tracking parameter interactions were accomplished using a minimum range restriction of 225 feet in order to elimate unrealistic rates and accelerations (inside minimum range of most tracking systems) and in order to reflect the minimum ranges experienced in the VX-4 flight test. Furthermore, the data were collected for three cases ±60° off nose, ±60° off tail, and the full sphere coverage case.

(U) Figure 6 is representative of the plots for the tracking parameters contained in Appendix B. Referring to Fig. 6, the absolute value of range rate is plotted versus the total probability of occurrence. In cases where the coverage is not full-sphere, a probability normalized to the area of coverage is shown alongside of the total probability. The various solid lines on the graph represent the variations in maximum range accelerations. The average dwell times for the conditions of range rate and accelerations are shown by the dotted lines.

(U) Referring to Fig. 6, and taking a range rate capability of 960 ft/sec, it can be seen that the probability of occurrence of range acceleration less than 180 ft/sec^2 is .77. In other words, with a 360° tracker with a range rate capability of 960 ft/sec and a range acceleration capability of 180 ft/sec^2, tracking can be accomplished 77% of the total combat time. Referring to the dotted lines on the same graphs, the average duration of the track under these conditions is approximately 11 seconds. Further details on the tracking performance under these specific conditions can be extracted from the tables in Appendix B.

The parameter interactions studied in the aforementioned manner are:

i. Range rate versus range acceleration
ii. Azimuth line-of-sight rate versus azimuth line-of-sight acceleration
iii. Elevation line-of-sight rate versus elevation line-of-sight acceleration.

2. Clutter Interactions

(U) The clutter interactions, like the tracking parameter interactions, were subject to a minimum range of 225 ft. and for three cases: ±60° off nose, ±60° off tail, and the full sphere coverage case.

(U) Figure 7 is representative of the plots for the clutter interactions contained in Appendix B. Referring to Fig. 7, the

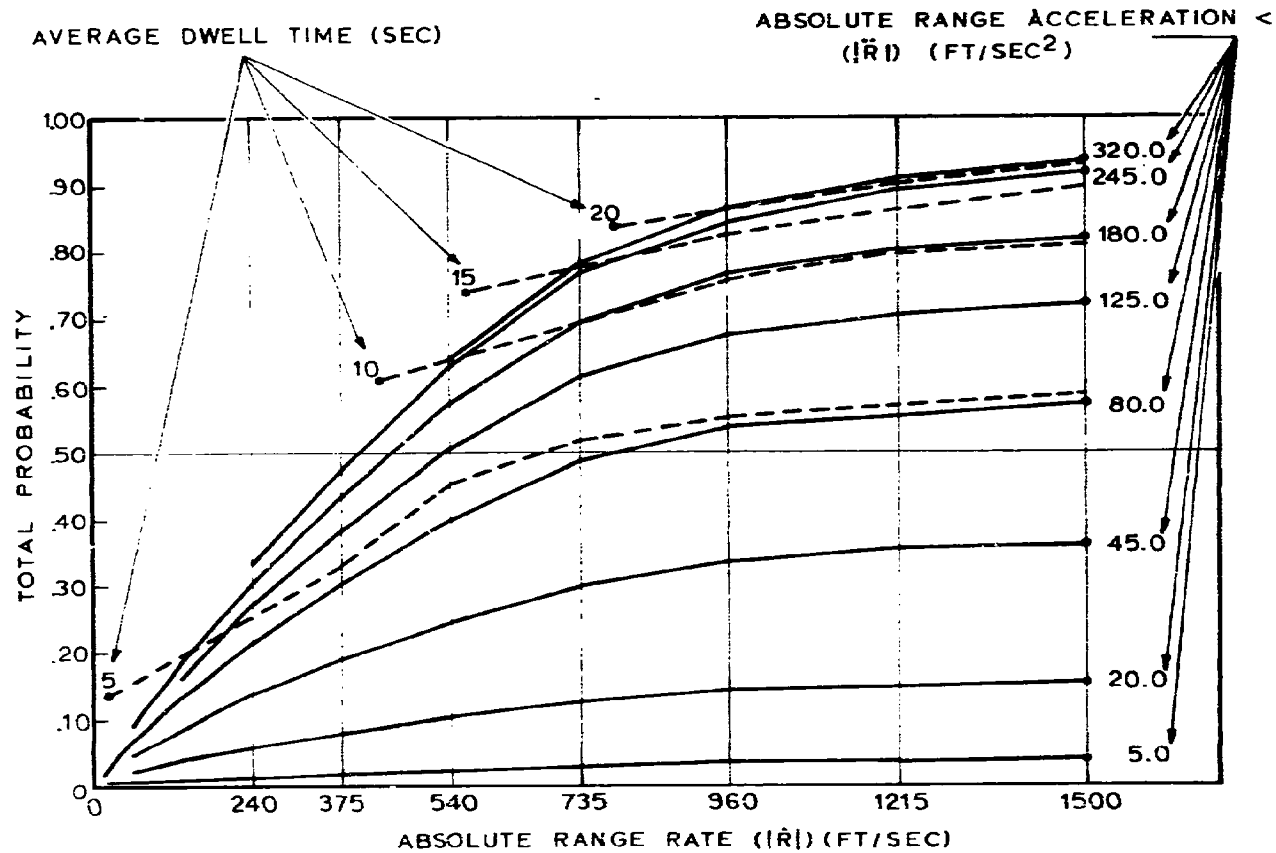


FIG. 6 - CUMULATIVE PROBABILITY DISTRIBUTION OF ABSOLUTE RANGE RATE FOR SEVERAL ABSOLUTE RANGE ACCELERATION LIMITS FOR TOTAL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT.

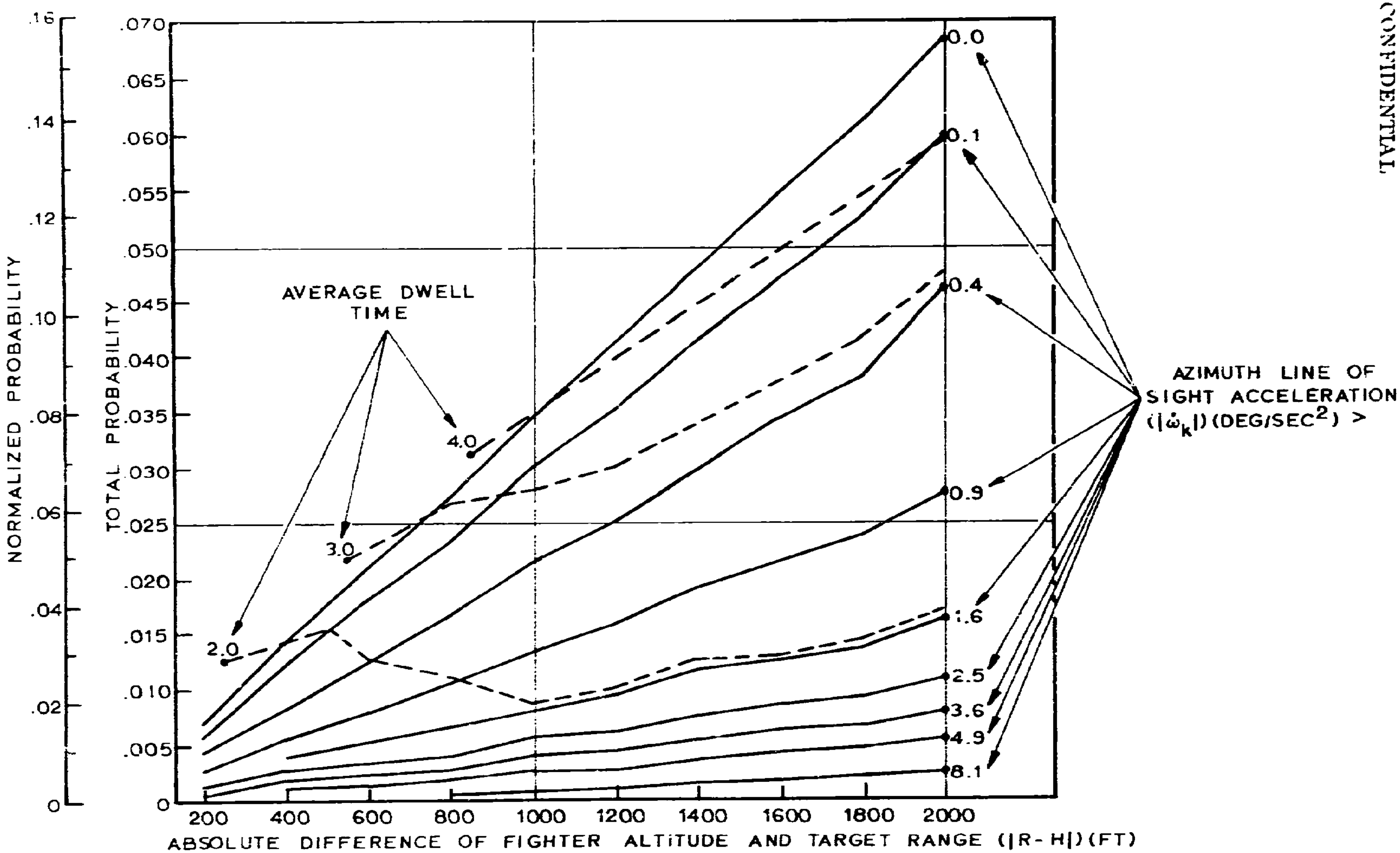


FIG. 7 - CUMULATIVE PROBABILITY DISTRIBUTION OF ABSOLUTE DIFFERENCE OF FIGHTER ALTITUDE AND TARGET RANGE FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT.

difference in the range to the target and the altitude of the fighter is plotted versus the total probability of occurrence and the normalized probability (normalized to the area coverage, in this case ±60 off nose) of occurrence. The solid lines represent the probability that the azimuth line-of-sight rate is greater than the value indicated. The dotted lines represent the average dwell time in clutter. Using Fig. 7 as an example and assuming the altitude clutter return has a spread of ±1000 ft, the target is within that region 4.3% of the total combat time and 7.8% of the time when the target is within ±60° of the nose of the fighter. Using the same clutter width, the azimuth line-of-sight rate exceeds .9°/sec² 3.5% of the normalized time for an average duration of 2.3 seconds.

(U) Four types of clutter were investigated as a function of range acceleration, azimuth line-of-sight acceleration, and elevation line-of-sight acceleration. These three parameters, with their time duration, were chosen because they present the severest problem in tracking through a clutter "blind" zone. The servo or memory systems are dependent upon the extrapolation of old information to coast through the clutter. The rate of change of the old information and the associated blind time are vital in order to be able to assess the probability of a track through clutter. For example, assuming a "blin' time" of 2.3 seconds and an azimuth line-of-sight acceleration during this time of .9°/sec², the azimuth angle error of the tracking loop is 2.38°. The four types of clutter parameterized are listed below:

a. Pulse Doppler Main Beam Clutter (see Fig. 8)

(U) The main beam return of a pulse doppler radar has a frequency shift and a finite width dependent upon the main beam ground return, the antenna beamwidth, and the look-down angle from the velocity vector. Because of this clutter, the area around the mainbeam return is notched out. The data presented in this report can be evaluated for various notch widths.

The equation used to position the main beam clutter notch is given below:

$$VCBT = V_T \cos \lambda_{AT} \cos \lambda_{ET}$$

V_T = target velocity

$VCBT$ = target contribution to the range rate

λ_{AT} = target azimuth angle

λ_{ET} = target elevation angle

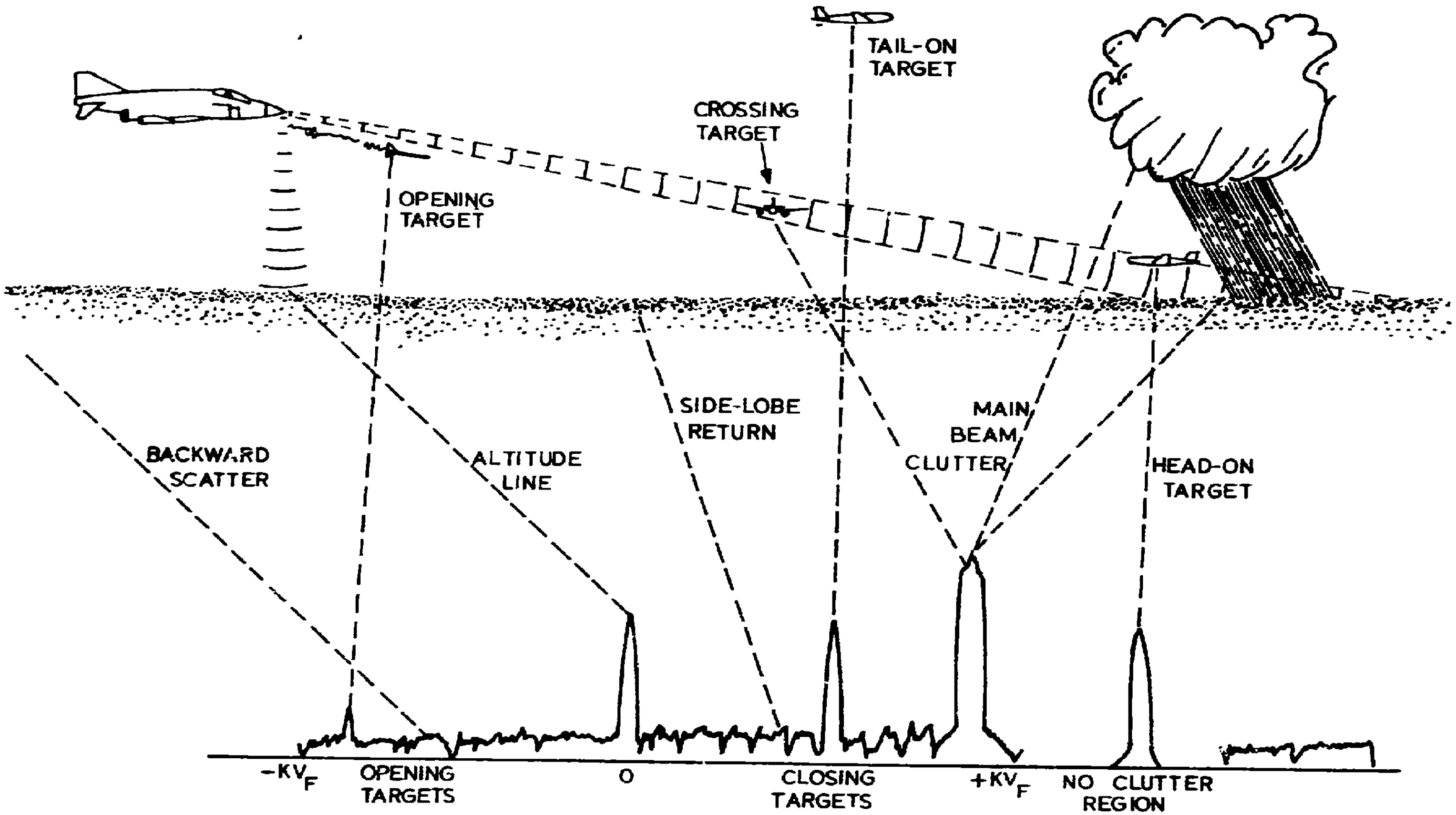


FIG. 8 – DOPPLER CLUTTER SPECTRUM.

b. Pulse Doppler Altitude Line, f_o (see Fig. 8)

(U) The altitude line return in a pulse doppler system is the return from the ground directly below the aircraft which has a doppler shift equal to the velocity of the fighter times the sine of the climb angle. With the fighter flying straight and level, the doppler shift is zero, i.e., the return from the ground is at the transmitted frequency f_o. This ground return has, like the main beam clutter, a frequency spread. For this reason and because of the f_o notch mechanization of the current AI radars, this study used various notch widths about the transmitted frequency. Therefore, when the range rate to the target is zero, within the tolerance of the notch, the target is said to be in the notch.

c. Pulse Mainbeam Clutter (see Fig. 9)

(U) The pulse mainbeam clutter is the return of the mainbeam from ground. The equation used for this analysis is given below:

$$\text{DELTA-R} = \frac{HF}{\sin (B + 2.5^{o})} - R$$

DELTA-R = range difference between target return and leading edge of mainbeam clutter - ft.
HF = fighter altitude - ft.
B = angle the center of mainbeam makes with the ground - degrees.
2.5^{o} = the first null on the antenna pattern - degrees.
R = range to the target - ft.

Various widths of DELTA-R were used in order to approximate the effect of the various size range gates used in the AI radars of today.

d. Pulse Altitude Line (see Fig. 9)

(U) The pulse altitude line is the ground return directly below the aircraft. When the range to the target and the altitude of the fighter are close to each other, the target is said to be in altitude line clutter. As before, this clutter is investigated for various widths.

3. <u>Miscellaneous Interactions</u>

(U) The primary interaction conducted in this portion of the study consisted of a preliminary study of radar glint. The objec-

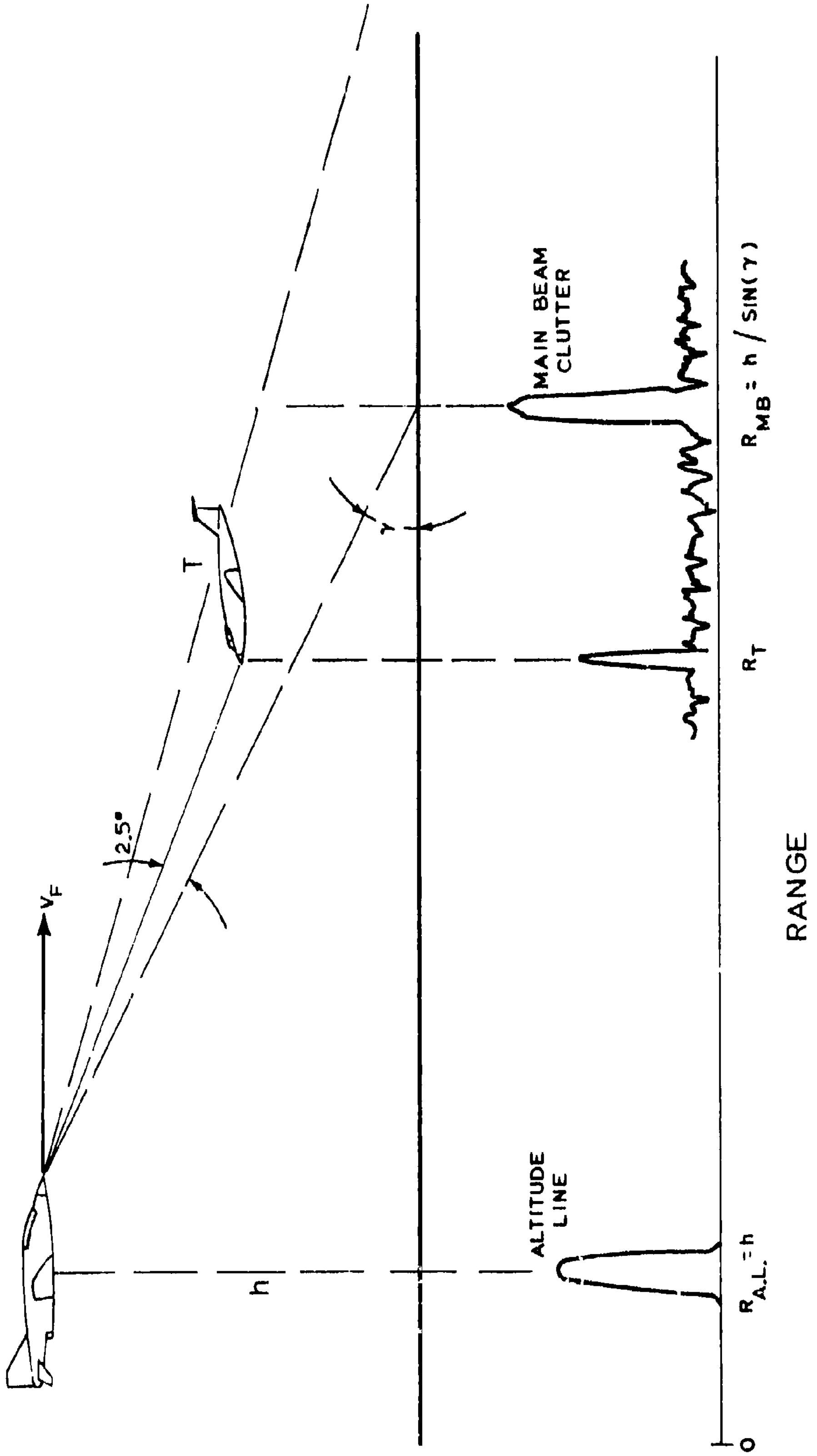


FIG. 9 - PULSE CLUTTER SPECTRUM.

tive was to determine whether or not glint is a problem and, if so, to ascertain the magnitude of the problem. To accomplish this, the range to the target versus the rate of change of the target aspect was investigated for various target aspects.

(U) Another study undertaken in this section was one to determine the minimum range distribution. In the previous study, primary weapon control requirements, it can be noted that the distributions given for range were with regard to maximum range only. This study shows the distribution of the other end of the total range distribution.

(U) Also given in this section is the distribution of the fighter "g" loading.

B. <u>Results</u>

1. Tracking Parameter Interaction

(U) Table 3 is a summary of weapon system tracking requirement for a dogfight environment. The parameter values given are the tracking loop requirements in terms of rates and accelerations for 90, 95, and 99% probability of each loop retaining lock. Appendix B contains the curves and data tables from which these numbers were extracted. Through use of Appendix B. values for different probabilities may be obtained and average track times may be determined.

(U) The probability of track in Table 3 is expressed for each track loop independent of the other two track loops. The rates and accelerations given for each loop are dependent and thus various combinations of the two parameters can yield the same probability of track. For a description of this dependence, refer to Appendix B.

2. Clutter Interactions

(U) Appendix B contains the figures and data used to determine the probabilities of being in clutter and the average duration in the clutter. In addition, track errors at time of emergence from clutter may also be calculated.

(U) Table 4, in addition to summarizing the pulse and pulse doppler clutters, shows the clutter for a coherent pulse radar. A coherent pulse radar as used herein is basically a short pulse, low PRF radar with doppler filters in the range bins. The coherent pulse radar has the same altitude clutter as a pulse radar but has pulse doppler type main beam clutter. The blind velocity for the main beam clutter notch filter is smaller than in a conventional high PRF pulse

TABLE 3 - SUMMARY OF WEAPON CONTROL SYSTEM TRACKING REQUIREMENTS.

	AI RADAR COVERAGE			+60 TAIL COVERAGE			FULL SPHERE COVERAGE		
	90%	95%	99%	90%	95%	99%	90%	95%	99%
RANGE TRACK LOOP									
RATE (ft/sec)	1700	1700	1800	1700	1700	2000	1400	1700	2200
ACCELERATION (ft/sec^2)	210	280	460	210	290	500	310	390	1000
AVERAGE TRACK TIME (sec)	9	10	9	6	7	8	20	30	100
ELEVATION TRACK LOOP									
RATE (deg/sec)	25	25	50	15	20	35	25	35	72
ACCELERATION (deg/sec^2)	7	15	32	9	15	39	10	19	81
AVERAGE TRACK TIME (sec)	10	11	12	7	8	8	23	38	143
AZIMUTH TRACK LOOP									
RATE (deg/sec)	20	25	45	10	15	30	20	30	72
ACCELERATION (deg/sec^2)	5	10	34	9	13	44	9	20	81
AVERAGE TRACK TIME (sec)	9	11	12	7	8	8	24	38	165

TABLE 4 - CLUTTER SUMMARY FOR AI RADAR.

	PULSE		PULSE DOPPLER		COHERENT PULSE	
	MBC	AL	MBC	f_o	MBC	AL
SIZE NOTCH USED	300 (FT)	±1000 (FT)	±200 (FT/SEC)	±150 (FT/SEC)	±40 (FT/SEC)	±1000 (FT)
PROBABILITY OF OCCURENCE	.005	.078	.090	.083	.0001	.078
AVERAGE DWELL TIME (SEC)	1.1	3.9	1.8	2.4	1.0	3.9
.05 PROBABILITY OF BREAK LOCK ERROR						
a) RANGE (FT)	*	115			*	115
RANGE RAGE (FT/SEC)			75	61		
b) ELEVATION ANGLE (DEGREES)	*	1.7	.22	.34	*	1.7
c) AZIMUTH ANGLE (DEGREES)	*	1.01	.15	.43	*	1.01

* NOT MEASURABLE BY .05 CRITERIA

doppler radar. A typical value for this notch filter is ±40 ft/sec.

(U) The 0.05 probability of break lock error contained in Table 4 is the average error in the tracking loop that is seen when the target comes out of the clutter. This error or greater than this error is experienced 5% of the time the target is within AI radar coverage.

(C) As can be seen in Table 4, the pulse doppler system has the severest problem with clutter. 17% of the time in AI radar coverage, the PD radar is in clutter. It can also be seen that in order to effectively use a short pulse radar, the altitude clutter problem must be overcome. A signal strength analysis will provide better insight into the severity of this problem.

3. Miscellaneous Interactions

(U) For a complete description of the interactions performed in this section, refer to Appendix B.

(C) In looking at the minimum range of a dogfight, it was shown that 2.5% of the engagement time the two aircraft were within 765 ft. Of the time the target was within the fighters AI radar coverage, 2.5% of the time the target was within 1200 ft.

(C) In the investigation of the aircraft "g" loading, it was shown that the fighter aircraft pulled 6 "g" or better, 5% of the time.

(C) In a preliminary investigation of glint, it was suggested that it is possible to increase the tracking loops' bandwidth at short ranges without worsening the glint problems. A notable exception to this is the head on case where the target is nonmaneuvering prior to a flyby. In this case, an increase in bandwidth will probably cause an earlier break-lock.

IV. CONCLUSIONS

A. (C) In Section II of this report, the verification of the NADC manned air combat simulation by VX-4 flight tests was shown.

B. (C) In Section II of this report, the weapon control parameter requirements, with the exception of coverage requirements, were shown to be independent of aircraft and weapons.

C. (C) In the comparison of Tables 2 and 3, it can be seen that distribution of the weapon control parameters is not normal. The impact of this conclusion is that the actual distribution, as shown in Section III, is required in order to arrive at valid weapon control parameters.

D. (C) It was shown in Section III that the rates and accelerations for each tracking loop are dependent and that they must be considered jointly when deriving realistic tracking requirements. To look at the parameters independently, one could erroneously derive tracking requirements too severe.

E. (C) Due to the length of time in clutter notches (Table 4), it is concluded that high PRF pulse doppler radar should not be used in the dogfight engagement.

F. (C) The altitude line presents the severest clutter problem for the short pulse mode. The occurrences of main beam clutter for pulse and coherent pulse radar modes are small enough to be ignored.

G. (C) Table 5 presents the probability of track for the AERO-1A, AWG-9, and AWG-10 AI radars operating in the short pulse mode. This table is useful in determining the areas in which improvements could be made in order to improve overall capability.

(C) This table, although specifying track loop probabilities, gives the independent probabilities for the parameters listed with the exception of gimbal angle by which the rest of the parameters were limited. The "worst case" total track probabilities assume the independence of the parameters. The "best case" total track probabilities assume total dependence. The actual track probability for each radar is between these two extremes and in order to ascertain this actual probability, the correlation of all these parameters must be considered. This is best accomplished in a tracking model of each radar with special emphasis on the treatment of altitude line clutter.

H. (C) It is apparent throughout this report that the expansion of the coverage area would yield the most gain in track time. However,

TABLE 5 - PROBABILITY OF TRACK FOR PRESENT AI RADARS.

	AERO 1A		AWG-9		AWG-10	
	%	AVG. DURATION (sec.)	%	AVG. DURATION (sec.)	%	AVG. DURATION (sec.)
PROBABILITY OF BEING IN						
GIMBAL ANGLE	44.8	12	39.8	12	44.8	12
RANGE*	99	125	99	125	99	125
RANGE TRACK*	70.8	6	90.1	9	95.4	10.5
ELEVATION TRACK*	89.1	9.7	95.6	11	89.1	9.7
AZIMUTH TRACK*	93.2	10.2	97.5	11	93.2	10.2
PROBABILITY OF BEING FREE OF						
ALTITUDE LINE CLUTTER*	92.2	112	92.2	112	92.2	112
MAIN BEAM CLUTTER*	99.5	220	99.5	220	99.5	220
"WORST CASE," TOTAL TRACK PROABILITY	23.9%		30.4%		32.2%	
"BEST CASE," TOTAL TRACK PROBABILITY	31.7%		35.9%		39.9%	

*VALUES GIVEN ARE WHILE IN GIMBAL ANGLE

it is also shown that the size and shape of the coverage area greatly influences the remainder of the parameters. Furthermore, with expansion of the coverage area towards a hemisphere, the present type of tracking loops would be inadequate to handle the situation.

V. RECOMMENDATIONS

A. (C) It is recommended that radar tracking models (currently under development) be utilized to more precisely define the dogfight capabilities of present radars. These tracking models would be further utilized for the final determination of the modifications to be made to the AI radars to improve their dogfight capabilities.

B. (C) It is recommended that adaptive bandwidth tracking loops be investigated as a means of coordinating the AI and the dogfight requirements.

C. (C) It is recommended that a pulse clutter model, including antenna patterns and terrain reflectivity, be incorporated into the tracking model. This is necessary in order to properly size the clutter notches and to optimize the track-through requirements presented in this report.

D. (C) This study shows that glint should be incorporated into the tracking model.

E. (C) As explained in this report, no single data source is totally descriptive of the dogfight environment. It is recommended that an additional data source, NMC-ACM free combat flight test data, be utilized to forther verify and strengthen the conclusions of this report.

F. (C) The desirability of a total coverage tracker is evident. It can be noted that the present range-angle tracking system presents extremely high rates and accelerations around the beam of the aircraft. It is recommended that an investigation of alternative tracking methods be made. Candidate systems would be adaptive bandwidth tracking and a new tracker based on inertial coordinates.

G. (C) Although electro-optical trackers could be utilized to provide angle information, range information would still be required for the development of launch criteria. It is recommended that an investigation of alternative ranging systems be made for use with electro-optical trackers.

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VII. ACKNOWLEDGEMENTS

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IX. APPENDIX

A. Primary Weapon Control Requirements

1. Data Reduction Program

The data reduction program for this phase of the study was originally written to provide the desired data from the data collected by NADC on their manned simulator. The data provided by the NADC simulation are shown in Table A-1. With much modification of the data reduction program, the VX-4 data were used to obtain the same data output. The VX-4 tape output (as supplied by NWC) is shown in Table A-2.

The flow diagram of the data reduction program used in this phase of the study is shown in Figure A-1.

The following paragraphs are a description and derivation of the equations used in this data reduction program.

TABLE A-1

QUANTITIES PRINTED OUT
BY JOHNSVILLE SIMULATION

X - relative position in earth coordinates

Y - relative position in earth coordinates

H - altitude of each aircraft in earth coordinates

The following quantities are given for both aircraft.

ψ - course angle in degrees

θ - climb angle in degrees

ϕ - roll angle of velocity vector

$\dot{\phi}$ - roll rate

α - angle of attack

L - lift

T - thrust

W_F - weight of fuel

M - mach number

W - weight of fighter

t - time

TABLE A-2

QUANTITIES PRINTED OUT BY NWC
REDUCED VX-4 FLIGHT TESTS

X - X position

Y - Y position

Z - Z position

λ - angle off boresight

A_n - acceleration perpendicular to the velocity vector

A_L - acceleration along the velocity vector

t - time

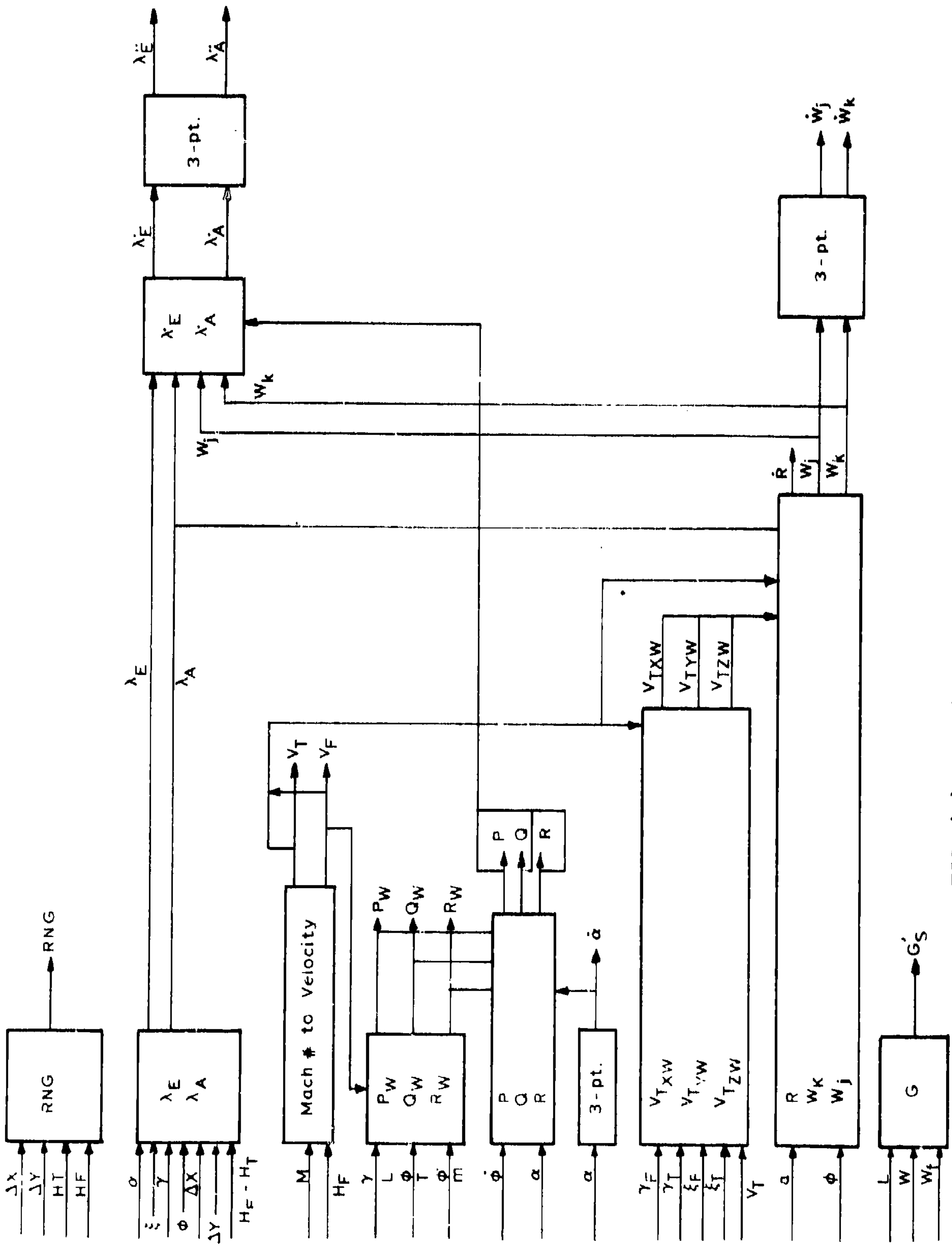


FIG. A-1 – DATA REDUCTION TECHNIQUE.

a. Matrix Notation

The following are expansions of matrices which will hereafter be expressed in their shorthand forms.

$$\begin{bmatrix} \cos\xi & \sin\xi & 0 \\ -\sin\xi & \cos\xi & 0 \\ 0 & 0 & 1 \end{bmatrix} = [\xi]$$

$$\begin{bmatrix} \cos\gamma & 0 & -\sin\gamma \\ 0 & 1 & 0 \\ \sin\gamma & 0 & \cos\gamma \end{bmatrix} = [\gamma]$$

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos\phi & \sin\phi \\ 0 & -\sin\phi & \cos\phi \end{bmatrix} = [\phi]$$

$$\begin{bmatrix} \cos\alpha & 0 & -\sin\alpha \\ 0 & 1 & 0 \\ \sin\alpha & 0 & \cos\alpha \end{bmatrix} = [\alpha]$$

$$\begin{bmatrix} \cos\lambda_A & \sin\lambda_A & 0 \\ -\sin\lambda_A & \cos\lambda_A & 0 \\ 0 & 0 & 1 \end{bmatrix} = [\lambda_A]$$

$$\begin{bmatrix} \cos\lambda_E & 0 & -\sin\lambda_E \\ 0 & 1 & 0 \\ \sin\lambda_E & 0 & \cos\lambda_E \end{bmatrix} = [\lambda_E]$$

The inverses of these matrices are the following:

$$\begin{bmatrix} \cos\xi & -\sin\xi & 0 \\ \sin\xi & \cos\xi & 0 \\ 0 & 0 & 1 \end{bmatrix} = [\xi]^{-1}$$

$$\begin{bmatrix} \cos\gamma & 0 & \sin\gamma \\ 0 & 1 & 0 \\ -\sin\gamma & 0 & \cos\gamma \end{bmatrix} = [\gamma]^{-1}$$

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos\phi & -\sin\phi \\ 0 & \sin\phi & \cos\phi \end{bmatrix} = [\phi]^{-1}$$

$$\begin{bmatrix} \cos\alpha & 0 & \sin\alpha \\ 0 & 1 & 0 \\ -\sin\alpha & 0 & \cos\alpha \end{bmatrix} = [a]^{-1}$$

$$\begin{bmatrix} \cos\gamma_A & -\sin\gamma_A & 0 \\ \sin\gamma_A & \cos\gamma_A & 0 \\ 0 & 0 & 1 \end{bmatrix} = [\lambda_A]^{-1}$$

$$\begin{bmatrix} \cos\lambda_E & 0 & \sin\lambda_E \\ 0 & 1 & 0 \\ -\sin\lambda_E & 0 & \cos\lambda_E \end{bmatrix} = [\lambda_E]^{-1}$$

b. Calculation of Gimbal Angles

Define an earth axis coordinate system such that $R_{XE} = \Delta X$, $R_{YE} = \Delta Y$, and $R_{ZE} = \Delta H$ where H corresponds to altitude. The range between the fighter and target is then given by

$$RNG = \sqrt{R_{XE}^2 + R_{YE}^2 + R_{ZE}^2} \qquad \text{(A-1)}$$

In the body axis system of an aircraft these become

$$\begin{bmatrix} R_X \\ R_Y \\ R_Z \end{bmatrix} = [\alpha][\phi][\gamma][\xi] \begin{bmatrix} R_{XE} \\ R_{YE} \\ R_{ZE} \end{bmatrix} \qquad \text{(A-2)}$$

Where the aircraft has an angle of attack α and a sideslip angle assumed to be zero. In the antenna axis, the range lies along the line-of-sight or X-axis therefore

$$\begin{bmatrix} R_X \\ R_Y \\ R_Z \end{bmatrix} = \begin{bmatrix} \lambda_A \end{bmatrix}^{-1} \begin{bmatrix} \lambda_E \end{bmatrix}^{-1} \begin{bmatrix} RNG \\ 0 \\ 0 \end{bmatrix} \qquad \text{(A-3)}$$

Expanding A-2 and A-3 and equating:

$$\begin{bmatrix} [\cos\alpha \cos\gamma \cos\xi - \sin\alpha (\sin\emptyset \sin\xi + \cos\emptyset \sin\gamma \cos\xi)] R_{XE} + \\ [-\cos\emptyset \sin\xi + \sin\emptyset \sin\gamma \cos\xi] R_{XE} + \\ [\sin\alpha \cos\gamma \cos\xi + \cos\alpha (\sin\emptyset \sin\xi + \cos\emptyset \sin\gamma \cos\xi)] R_{XE} \end{bmatrix}$$

$$[\cos\alpha \cos\gamma \sin\xi - \sin\alpha (-\sin\emptyset \cos\xi + \cos\emptyset \sin\gamma \sin\xi)] R_{YE} +$$

$$[\cos\emptyset \cos\xi + \sin\emptyset \sin\gamma \sin\xi] R_{YE} +$$

$$[\sin\alpha \cos\gamma \sin\xi + \cos\alpha (-\sin\emptyset \cos\xi + \cos\emptyset \sin\gamma \sin\xi)] R_{YE}$$

$$\begin{matrix} + [-\cos\alpha \sin\gamma - \sin\alpha \cos\emptyset \cos\gamma] R_{ZE} \\ + [\sin\emptyset \cos\gamma] R_{ZE} \\ + [-\sin\alpha \sin\gamma + \cos\alpha \cos\emptyset \cos\gamma] R_{ZE} \end{matrix} = \begin{bmatrix} RNG \cos\lambda_E \cos\lambda_A \\ RNG \cos\lambda_E \sin\lambda_A \\ -RNG \sin\lambda_E \end{bmatrix} \qquad \text{(A-4)}$$

Solving the three equations of the matrices for λ_E and λ_A

$$\lambda_E = -\sin^{-1}\left(\frac{\begin{matrix} [\sin\alpha \cos\gamma \cos\xi + \cos\alpha (\sin\emptyset \sin\xi + \cos\emptyset \sin\gamma \cos\xi)] R_{XE} \\ + [\sin\alpha \cos\gamma \sin\xi + \cos\alpha (-\sin\emptyset \cos\xi + \cos\emptyset \sin\gamma \sin\xi)] R_{YE} \\ + [-\sin\alpha \sin\gamma + \cos\emptyset \cos\alpha \cos\gamma] R_{ZE} \end{matrix}}{RNG} \right) \qquad \text{(A-5)}$$

$$\lambda_A = \tan^{-1}\left(\frac{\left[-\cos \phi \sin \xi + \sin \phi \sin \gamma \cos \xi\right] R_{XE} + \left[\cos \phi \cos \xi + \sin \phi \sin \gamma \sin \xi\right] R_{YE} + \left[\sin \phi \cos \gamma\right] R_{ZE}}{\left[\cos \alpha \cos \gamma \cos \xi - \sin \alpha \left(\sin \phi \sin \xi + \cos \phi \sin \gamma \cos \xi\right)\right] R_{XE} + \left[\cos \alpha \cos \gamma \sin \xi - \sin \alpha \left(\sin \phi \cos \xi + \cos \phi \sin \gamma \sin \xi\right)\right] R_{YE} + \left[-\cos \alpha \sin \gamma - \sin \alpha \cos \phi \cos \gamma\right] R_{ZE}} \right) \quad \text{(A-6)}$$

c. Calculation of $\dot{W}$ and $\dot{R}$

In the wind coordinate axis of the target, the velocity is entirely in the X-direction. Transforming this velocity vector to the wind axis of the fighter, the components of velocity become

$$\begin{bmatrix} V_{TXW} \\ V_{TYW} \\ V_{YZW} \end{bmatrix} = \begin{bmatrix} \gamma_F \end{bmatrix} \begin{bmatrix} \xi_F \end{bmatrix} \begin{bmatrix} \xi_T \end{bmatrix}^{-1} \begin{bmatrix} \gamma_T \end{bmatrix}^{-1} \begin{bmatrix} V_T \\ 0 \\ 0 \end{bmatrix} \quad \text{(A-7)}$$

Expanding the matrix equation:

$$V_{TXW} = V_T \left[\cos \gamma_F \cos \gamma_T \left(\cos \xi_T \cos \xi_F + \sin \xi_T \sin \xi_F\right) + \sin \gamma_T \sin \gamma_F\right] \quad \text{(A-8)}$$

$$V_{TYW} = V_T \left[\sin \xi_F \cos \xi_T \cos \gamma_T - \cos {}_F \sin {}_T \cos {}_T\right. \quad \text{(A-9)}$$

$$V_{TZW} = V_T \left[\sin \gamma_F \left(\cos \xi_F \cos \xi_T \cos \gamma_T + \sin \xi_F \cos \gamma_T \sin \xi_T\right) - \cos \gamma_F \sin \gamma_T\right] \quad \text{(A-10)}$$

These are the components of the target velocity in the modified wind axis of the fighter where the roll of the fighter has not yet been included. The components of velocity of the fighter can now be subtracted and the difference in the velocities transformed to the antenna axis of the fighter to give

$$\begin{bmatrix} \dot{R} \\ RW_j \\ RW_K \end{bmatrix} = \begin{bmatrix} \lambda_E \end{bmatrix} \begin{bmatrix} \lambda_A \end{bmatrix} \begin{bmatrix} \alpha \end{bmatrix} \begin{bmatrix} \phi \end{bmatrix} \begin{bmatrix} V_{TXW} - V_F \\ V_{TYW} - 0 \\ V_{TZW} - 0 \end{bmatrix} \quad \text{(A-11)}$$

Here the roll angle of the fighter has been included. Expanding A-11 and solving for W_j, W_K, and $\dot{R}$ results in

$$W_K = \Big\{ [-\sin\ _A \cos\alpha](V_{TXW}-V_F) - [\sin\lambda_A \sin\alpha \sin\phi + \cos\lambda_A \cos\phi] V_{TYW}$$

$$+ [\sin\lambda_A \sin\alpha \cos\emptyset + \cos\lambda_A \sin\emptyset]\ V_{TZW} \Big\} / RNG \qquad \text{(A-12)}$$

$$-W_j = \Big\{ [\sin\lambda_E \cos\lambda_A \cos\alpha + \cos\lambda_E \sin\alpha]\ (V_{TXW} - V_F)$$

$$+ [\sin\lambda_E\ (\cos\lambda_A \sin\alpha \sin\emptyset + \sin\lambda_A \cos\emptyset) - \cos\lambda_E$$

$$\cos\alpha \sin\emptyset]\ V_{TYW} - [\sin\lambda_E \cos\lambda_A \cos\emptyset \cos\alpha - \sin\lambda_E \sin\lambda_A$$

$$\sin\emptyset - \cos\emptyset \cos\alpha \cos\lambda_E]\ V_{TZW} \Big\} / RNG \qquad \text{(A-13)}$$

$$\dot{R} = [\cos\lambda_E \cos\lambda_A \cos\alpha + \sin\lambda_E \sin\alpha](V_{TXW} - V_F)$$

$$+ [\cos\lambda_E\ (\cos\lambda_A \sin\alpha \sin\emptyset + \sin\lambda_A \cos\emptyset) + \sin\lambda_E \cos\alpha \sin\emptyset] V_{TYW}$$

$$- [\cos\lambda_E\ (\cos\lambda_A \sin\alpha \cos\emptyset - \sin\lambda_A \sin\emptyset) + \sin\lambda_E \cos\alpha \cos\emptyset]$$

$$V_{TZW} \qquad \text{(A-14)}$$

d. Calculation of Gimbal Angle Rates

The aircraft is assumed to be acted upon by the forces of thrust, gravity, lift, and drag. Thrust is defined to be aligned with the body X-axis of the aircraft and an angle of attack α is assumed. In the wind axis system of the aircraft, the acceleration is given by

$$\frac{1}{m}\begin{bmatrix} \Sigma F_{XW} \\ \Sigma F_{YW} \\ \Sigma F_{ZW} \end{bmatrix} = \begin{bmatrix} \dot{V}_F \\ R_W\ V_F \\ -Q_W\ V_F \end{bmatrix} \qquad \text{(A-15)}$$

where R_W and Q_W are the aircraft angular rates about the wind axis.

$$\frac{1}{m}\begin{bmatrix} \Sigma F_{XW} \\ \Sigma F_{YW} \\ \Sigma F_{ZW} \end{bmatrix} = \left(\frac{1}{m}\begin{bmatrix} -D \\ 0 \\ -L \end{bmatrix} + [\alpha]\begin{bmatrix} T \\ 0 \\ 0 \end{bmatrix} + [\emptyset]\ \ [\gamma]\begin{bmatrix} 0 \\ 0 \\ mg \end{bmatrix} \right) \qquad \text{(A-16)}$$

where gravitational force is changed from the earth axis system to wind axis system. Expanding (A-16) and substituting in (A-15) yields:

$$\dot{V}_F = \frac{T \cos \alpha - D}{m} - g \sin \gamma \tag{A-17}$$

$$R_W = g \sin \phi \cos \gamma / V_F \tag{A-18}$$

$$Q_W = (-g \cos \phi \cos \gamma + \frac{L - T \sin \alpha}{m})/^{V}F \tag{A-19}$$

P_W is assumed to be equal to $\dot{\phi}$ whose value is given.

The angular rates in the wind axis system are related to the angular rates in the body axis system by

$$\begin{bmatrix} P \\ Q \\ R \end{bmatrix} = \begin{bmatrix} 0 \\ \dot{\alpha} \\ 0 \end{bmatrix} + [\alpha] \begin{bmatrix} P_W \\ Q_W \\ R_W \end{bmatrix} \tag{A-20}$$

The expanded matrix equation results in:

$$P = P_W \cos \alpha - R_W \sin \alpha \tag{A-21}$$

$$Q = \dot{\alpha} + Q_W \tag{A-22}$$

$$R = P_W \sin \alpha + R_W \cos \alpha \tag{A-23}$$

The gimbal angle rates are related to P, Q, and R in the following way

$$\begin{bmatrix} W_i \\ W_j \\ W_K \end{bmatrix} = \begin{bmatrix} \lambda_E \end{bmatrix} \begin{bmatrix} \lambda_A \end{bmatrix} \begin{bmatrix} P \\ Q \\ R \end{bmatrix} + \begin{bmatrix} \lambda_E \end{bmatrix} \begin{bmatrix} 0 \\ 0 \\ \dot{\lambda}_A \end{bmatrix} + \begin{bmatrix} 0 \\ \dot{\lambda}_E \\ 0 \end{bmatrix} \tag{A-24}$$

The equation in the expanded matrix equation are:

$$W_i = P \cos \lambda_E \cos \lambda_A + Q \cos \lambda_E \sin \lambda_A - R \sin \lambda_A - \dot{\lambda}_A \sin \lambda_E \tag{A-24}$$

$$W_j = -P \sin \lambda_A + Q \cos \lambda_A + \dot{\lambda}_E \tag{A-25}$$

$$W_K = P \sin \lambda_E \cos \lambda_A + Q \sin \lambda_E \sin \lambda_A + R \cos \lambda_E + \dot{\lambda}_A \cos \lambda_E \tag{A-26}$$

Solving for $\dot{\lambda}_A$ and $\dot{\lambda}_E$ in terms of W_j and W_K yields:

$$\dot{\lambda}_E = W_j + P \sin \lambda_A - Q \cos \lambda_A$$

$$\dot{\lambda}_A = \left[W_K - P \sin \lambda_E \cos \lambda_A - Q \sin \lambda_E \sin \lambda_A - R \cos \lambda_E\right] / \cos \lambda_E$$

e. Glossary

ξ_F = yaw angle of fighter

ξ_T = yaw angle of target

γ_F = pitch angle of fighter

γ_T = pitch angle of target

ϕ = roll angle of fighter

α = angle of attack of fighter

λ_A = gimbal angle in azimuth

λ_E = gimbal angle in elevation

R_{XE} = X-coordinate
R_{YE} = Y-coordinate
R_{ZE} = Z-coordinate
of Range between fighter and target in earth axis system

R_X = X-coordinate
R_Y = Y-coordinate
R_Z = Z-coordinate
of Range between fighter and target in body axis system

RNG = Range from fighter to target

V_T = Velocity of target

V_{TXW} = X-coordinate
V_{TYW} = Y-coordinate
V_{TZW} = Z-coordinate
of velocity of target in modified wind axis system of fighter

$\dot{R}$ = Closing velocity between fighter and target

W_i = Space line of sight rate measured about line of sight X-axis

W_j = Space line-of-sight rate measured about line of sight Y-axis

W_K = Space line of sight rate measured about line of sight Z-axis

V_F = Velocity of fighter

$\dot{V}_F$ = Acceleration of fighter

P_W = Angular rate of fighter in wind Axis system measured about X-axis

Q_W = Angular rate of fighter in wind Axis system measured about Y-axis

R_W = Angular rate of fighter in wind Axis system measured about Z-axis

F_{XW} = X-component of forces on fighter in wind axis system

F_{YW} = Y-component of forces on fighter in wind axis system

F_{ZW} = Z-component of forces on fighter in wind axis system

T = thrust

D = drag

L = lift

g = gravitational constant

m = mass of fighter and fuel

$\dot{\alpha}$ = rate of change of angle of attack

$\dot{\lambda}_A$ = rate of change of gimbal azimuth angle

$\dot{\lambda}_E$ = rate of change of gimbal elevation angle

2. Azimuth versus elevation of the target versus frequency of occurrence data plots are contained in Fig. A-2 through Fig. A-15.

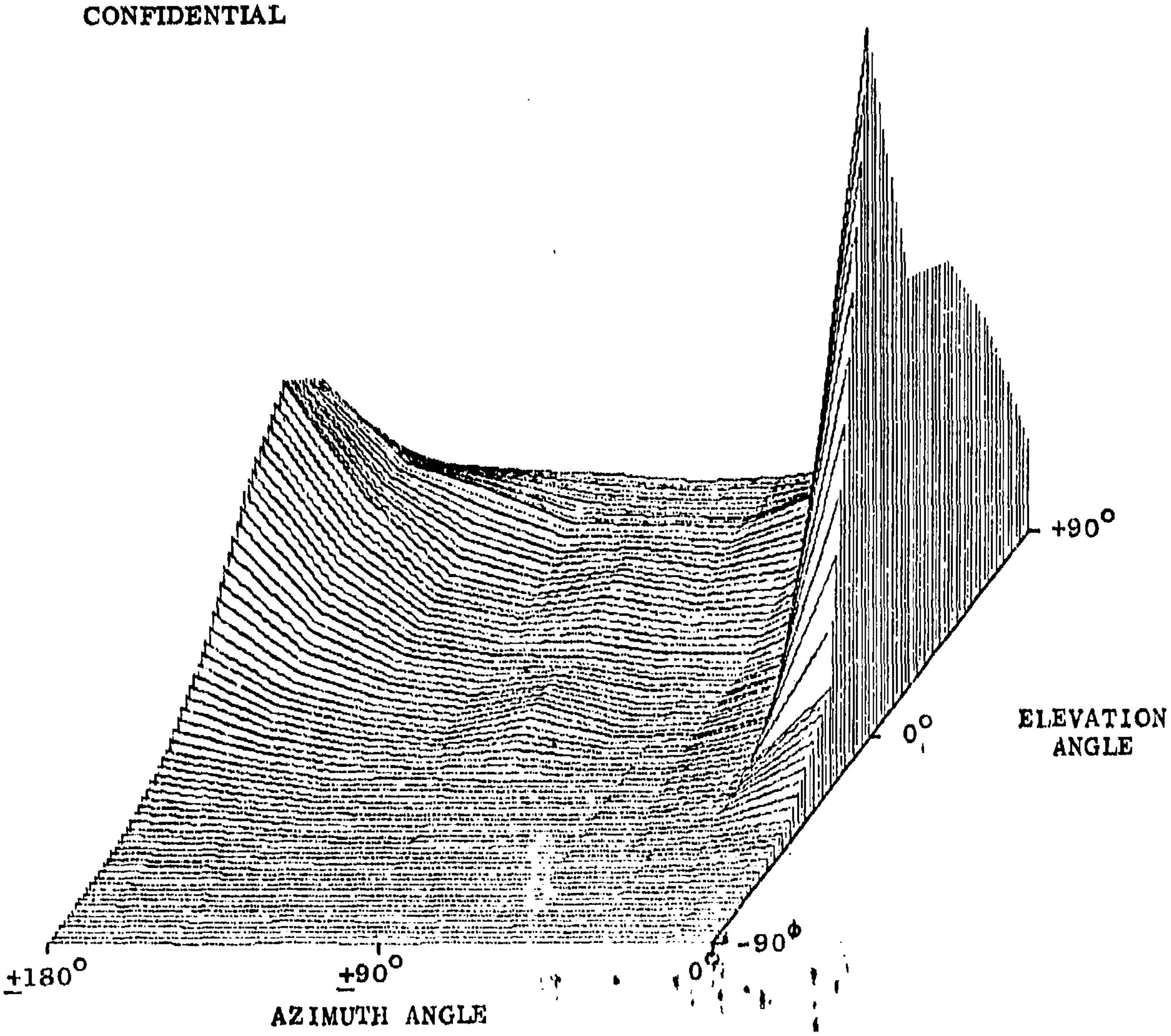


FIG. A-2 - TAPE 1 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

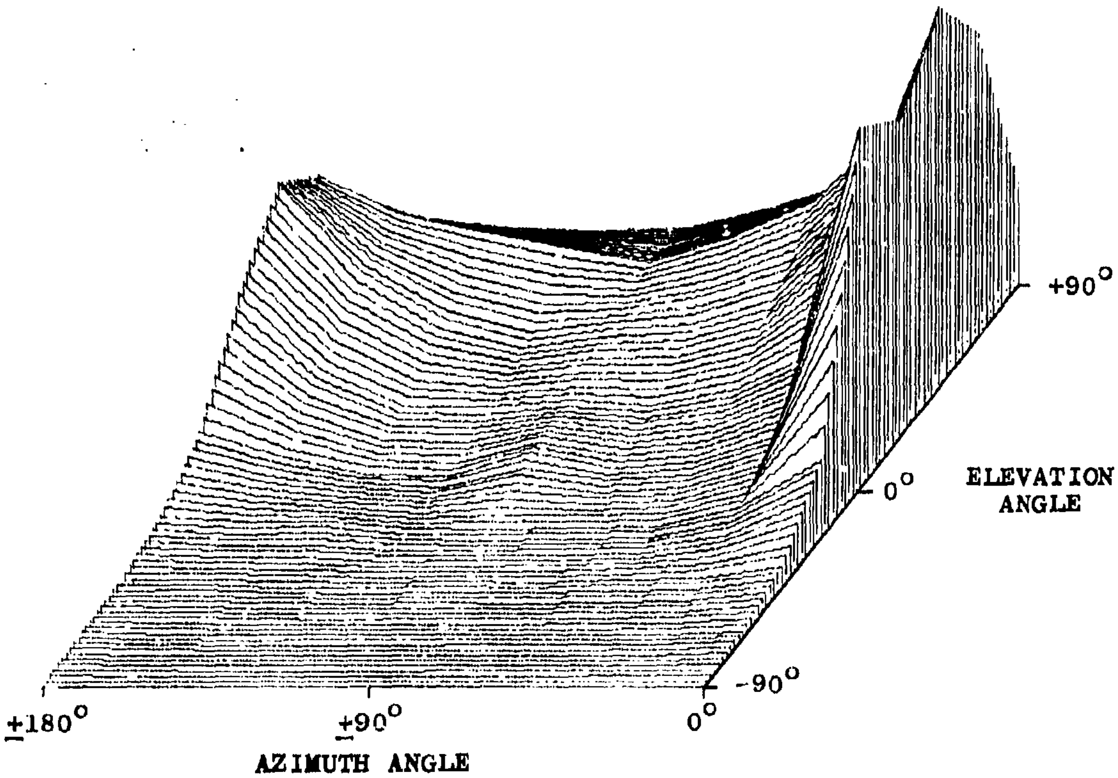


FIG. A-3 - TAPE 1 - FIGHTER 2 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

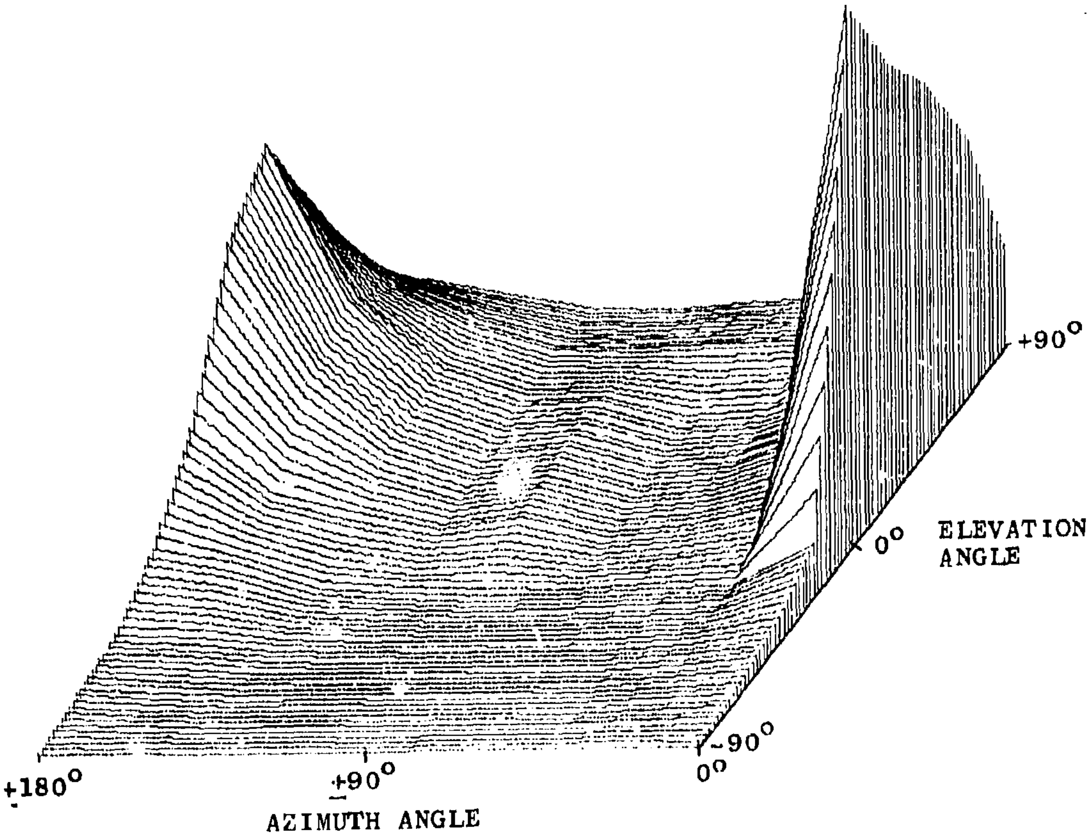


FIG. A-4 - TAPE 2 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

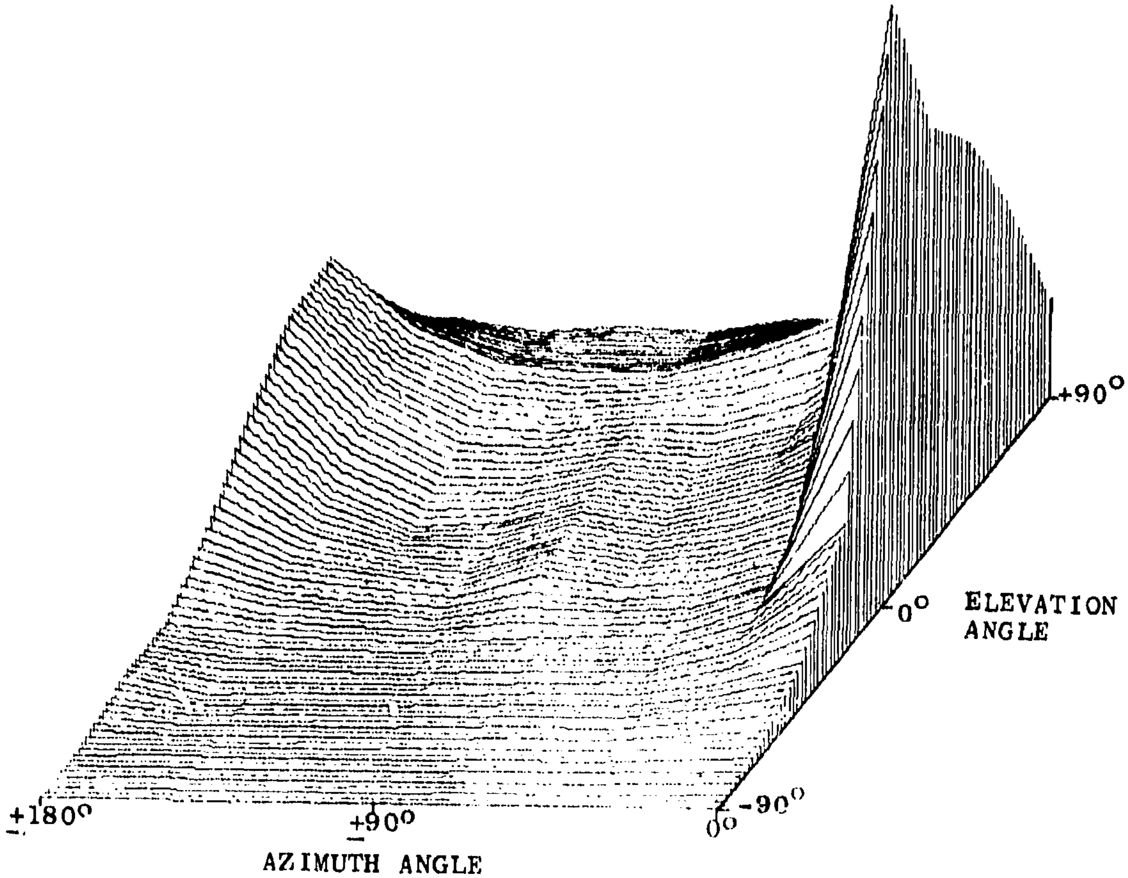


FIG. A-5 - TAPE 2 - FIGHTER 2 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

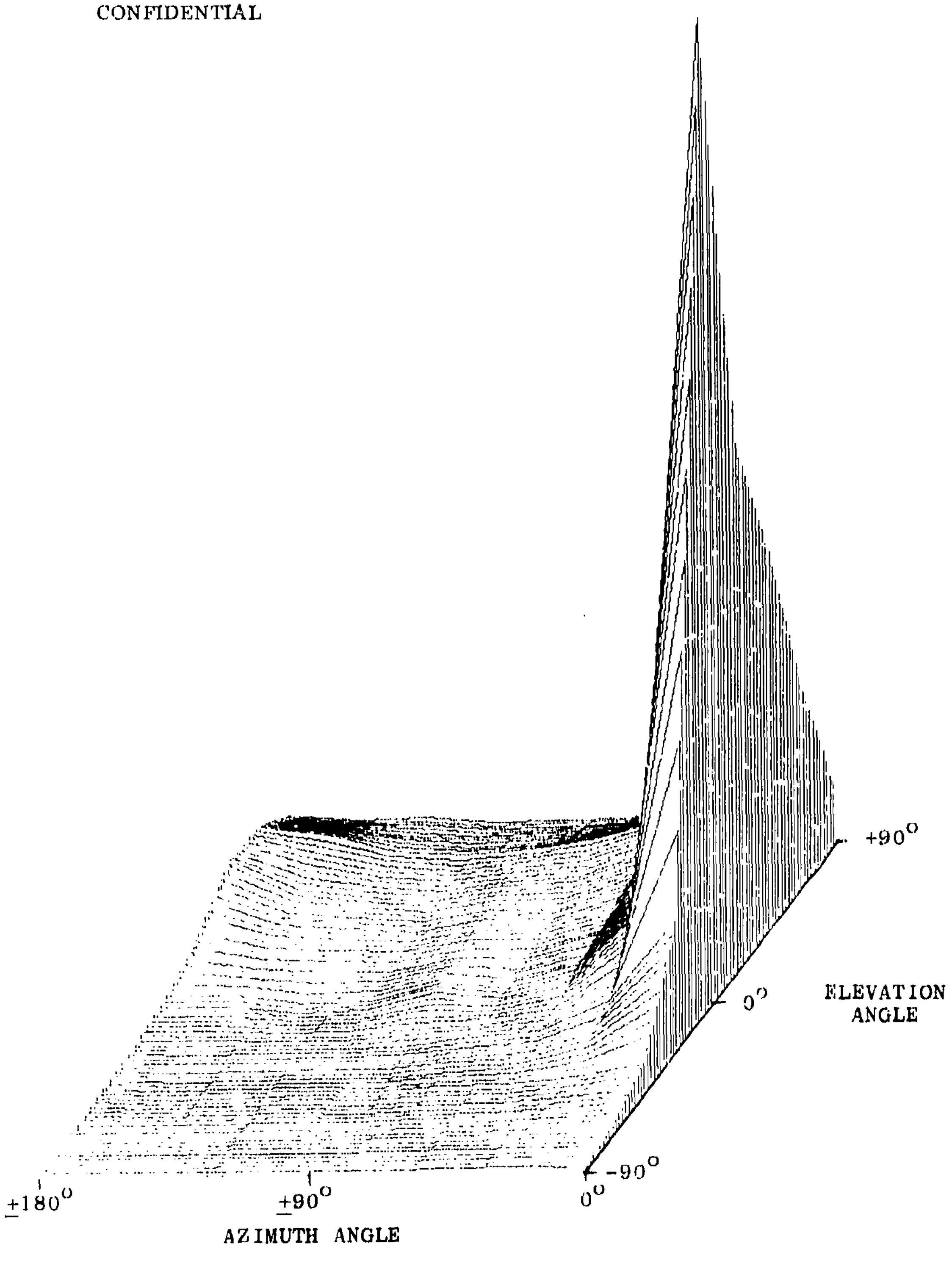


FIG. A-6 - TAPE 3 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

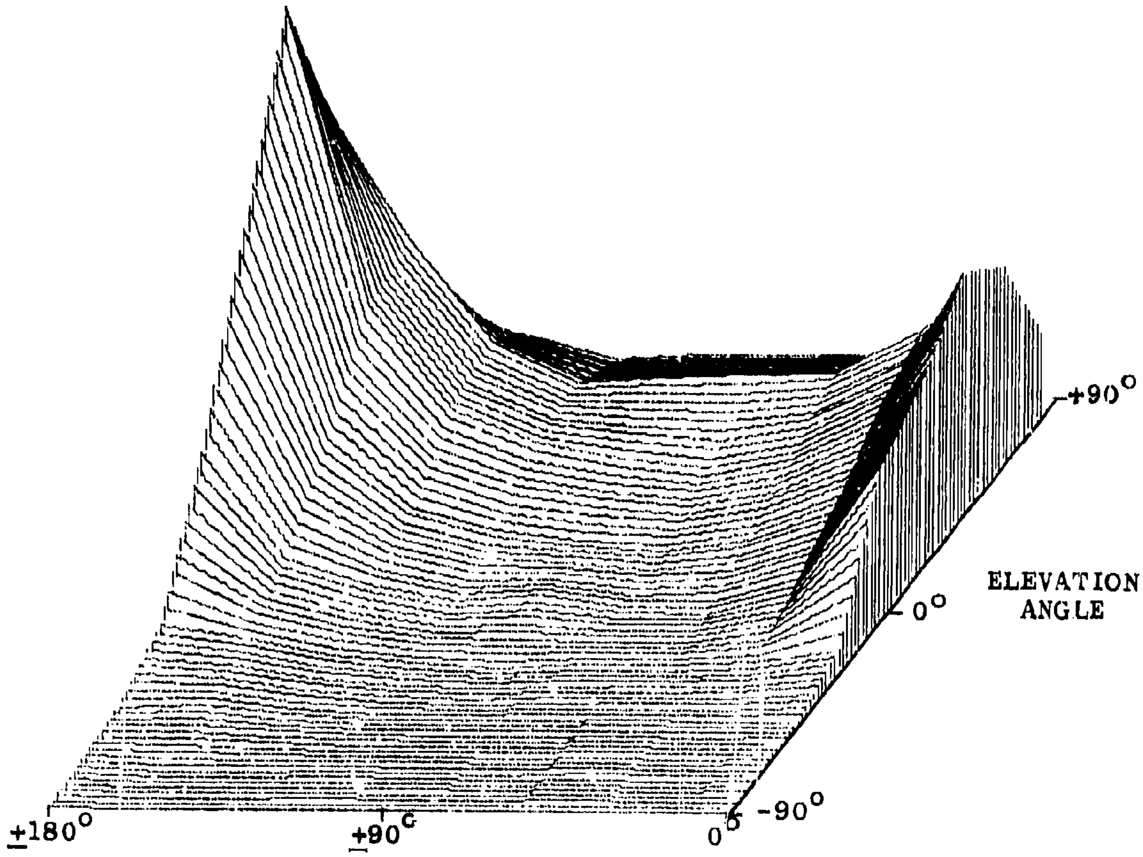


FIG. A-7 - TAPE 3 - FIGHTER 2 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

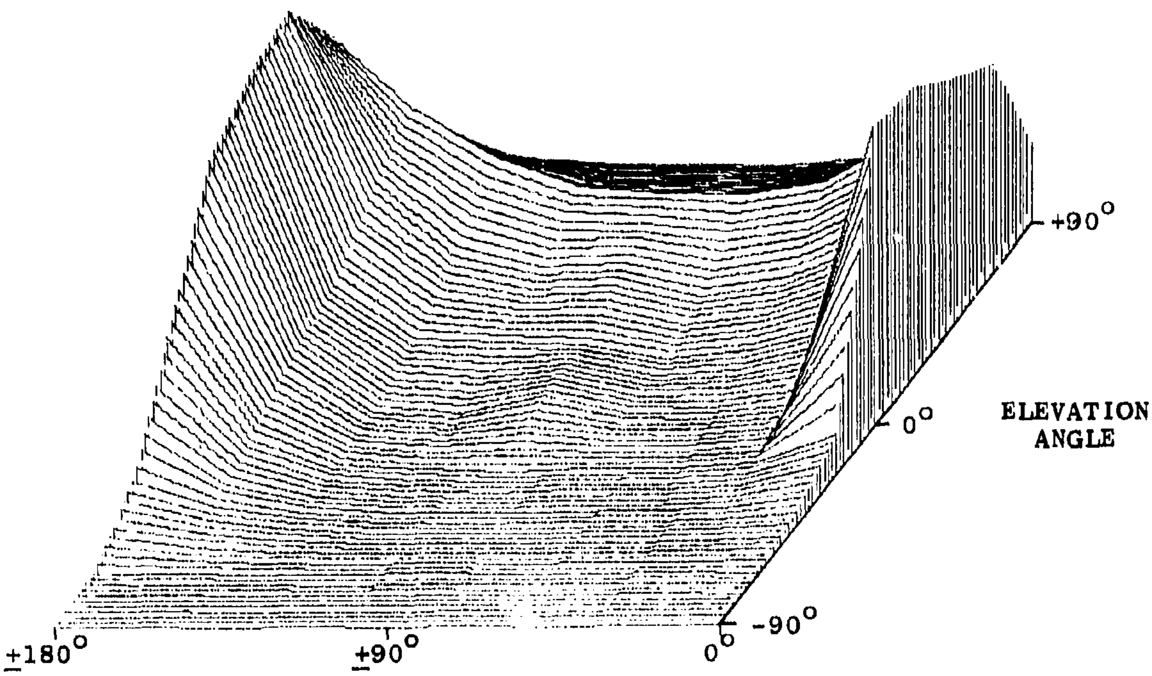


FIG. A-8 - TAPE 4 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

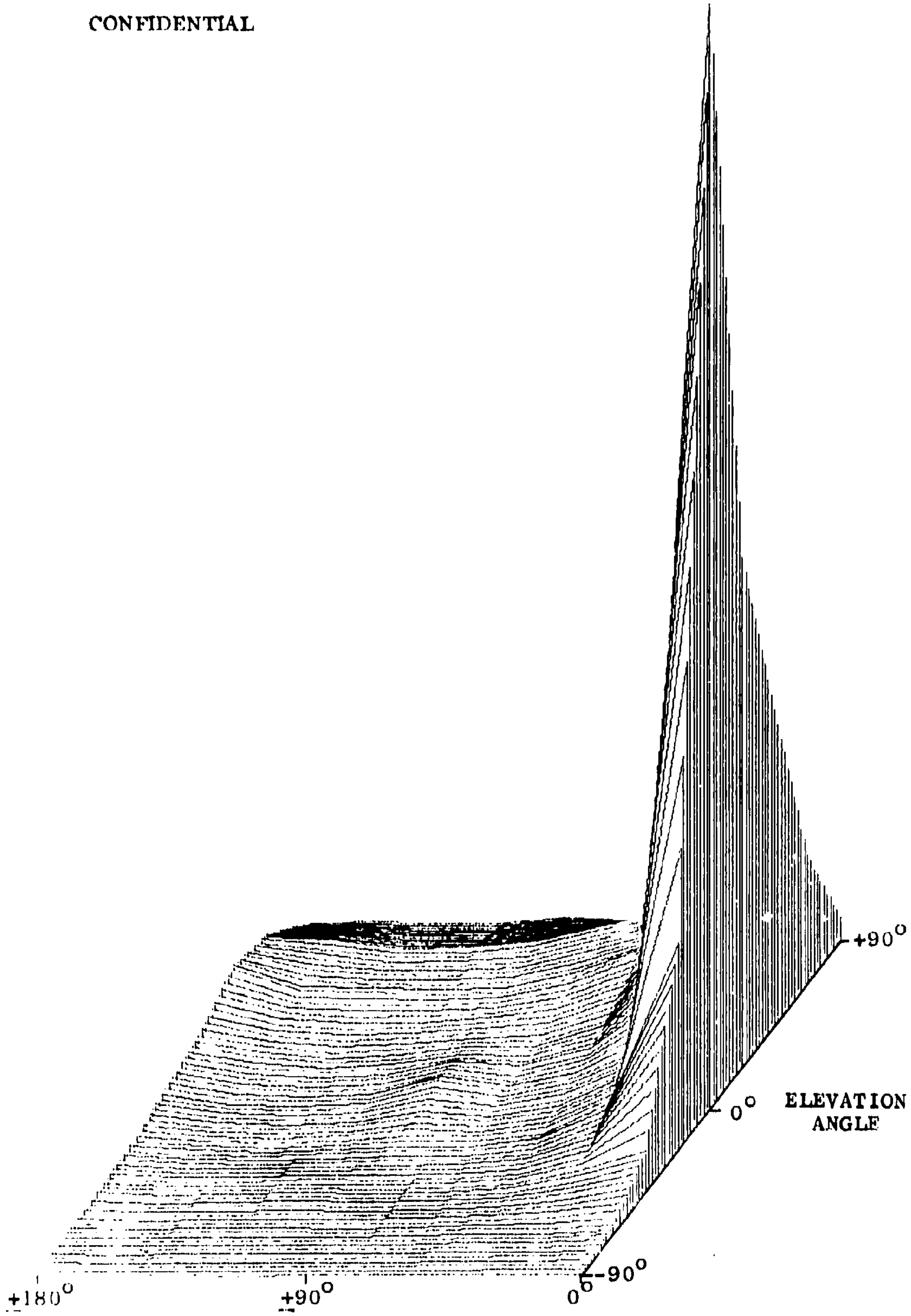


FIG. A-9 - TAPE 4 - FIGHTER 2 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

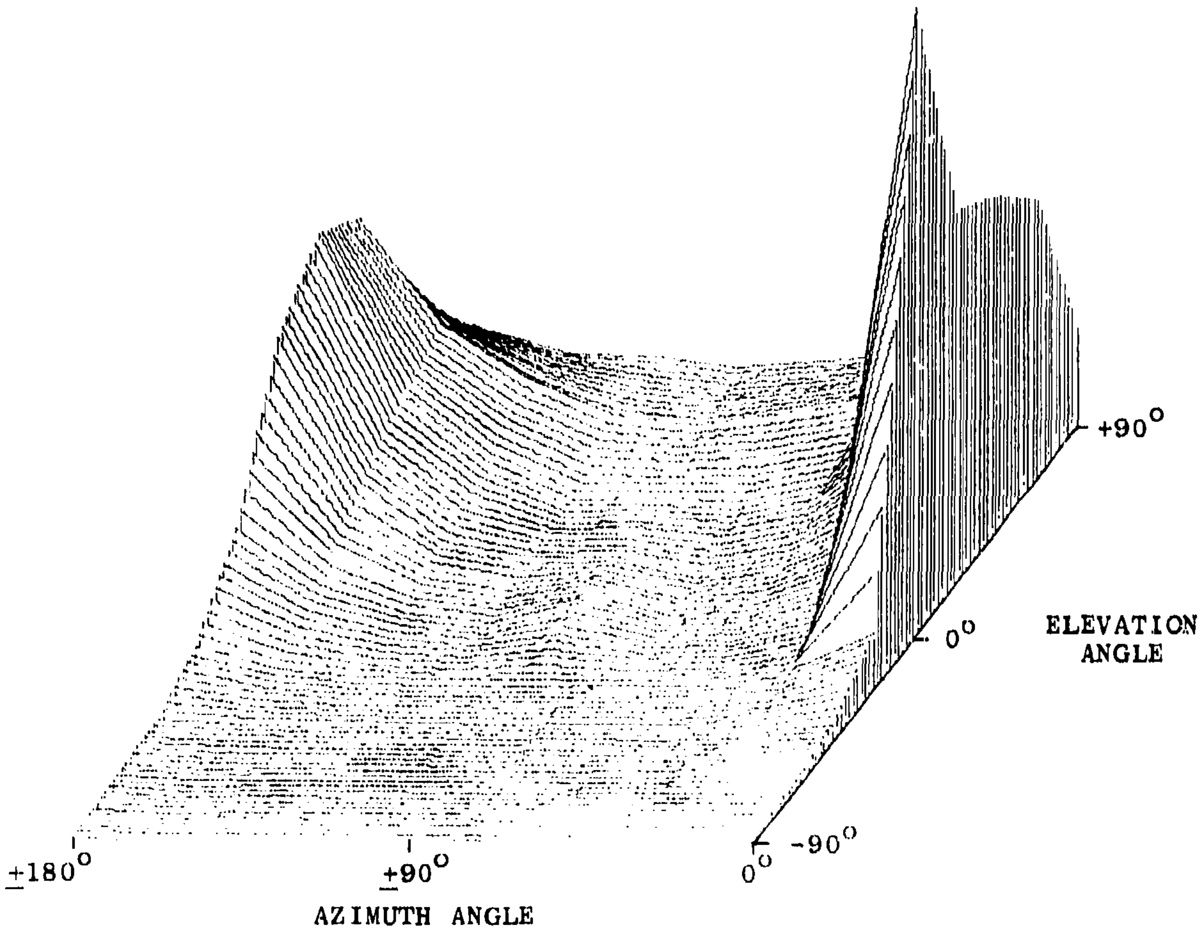


FIG. A-10 - TAPE 5 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

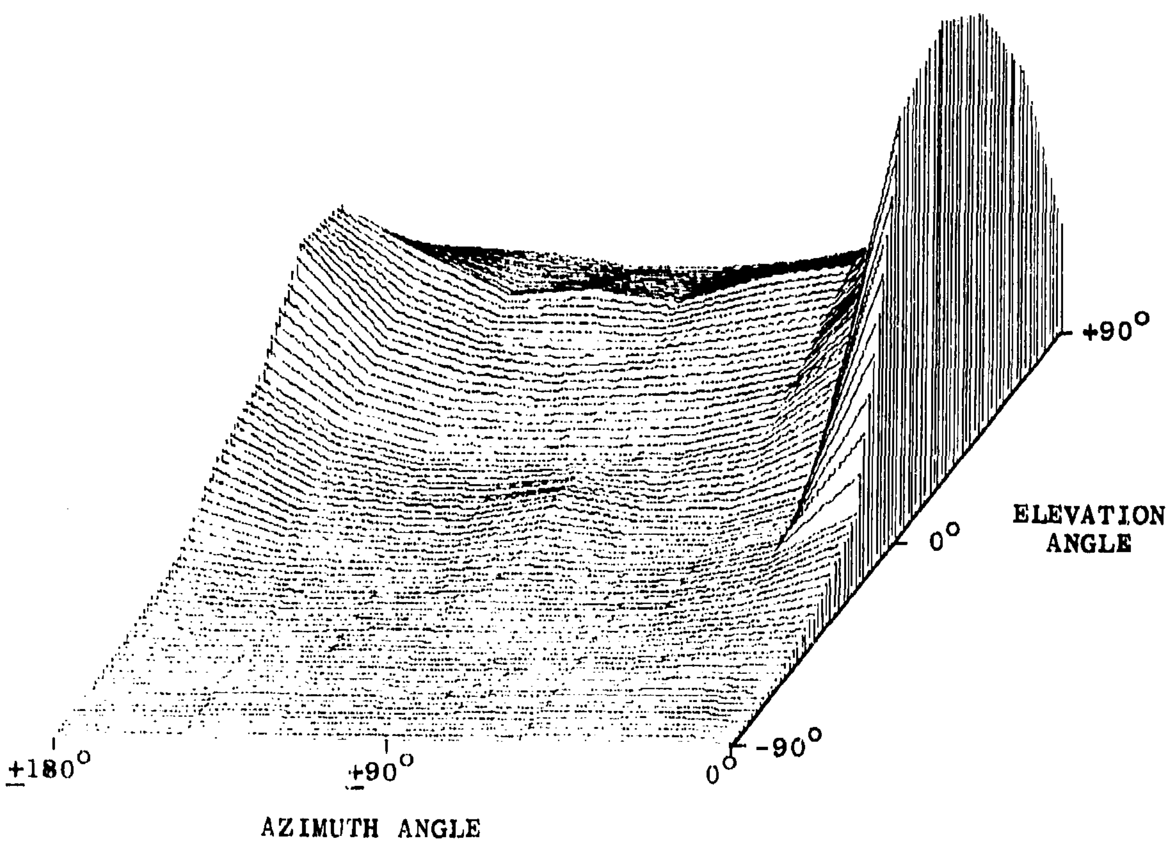


FIG. A-11- TAPE 5 - FIGHTER 2 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

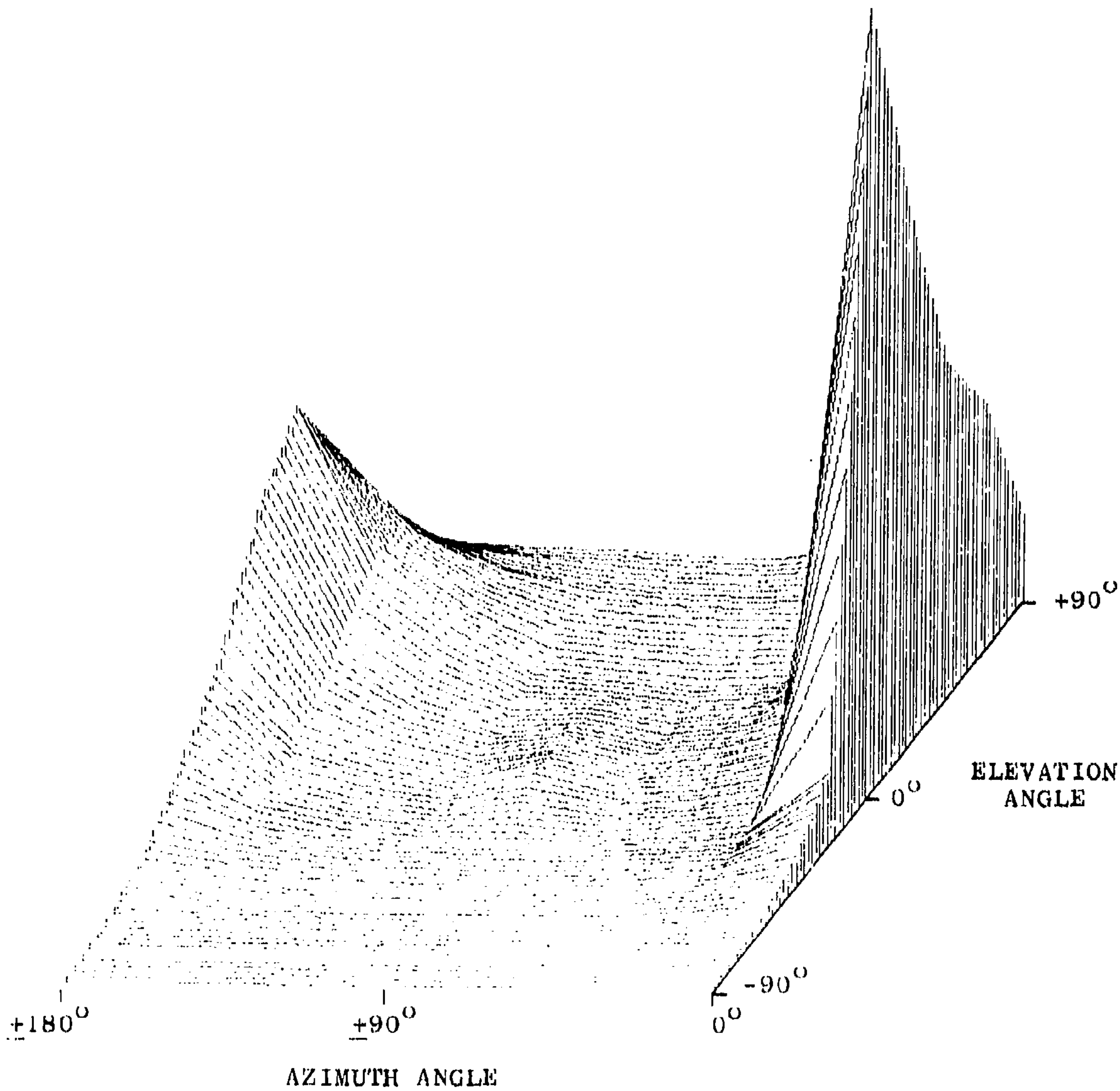


FIG. A-12 - TAPE 6 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

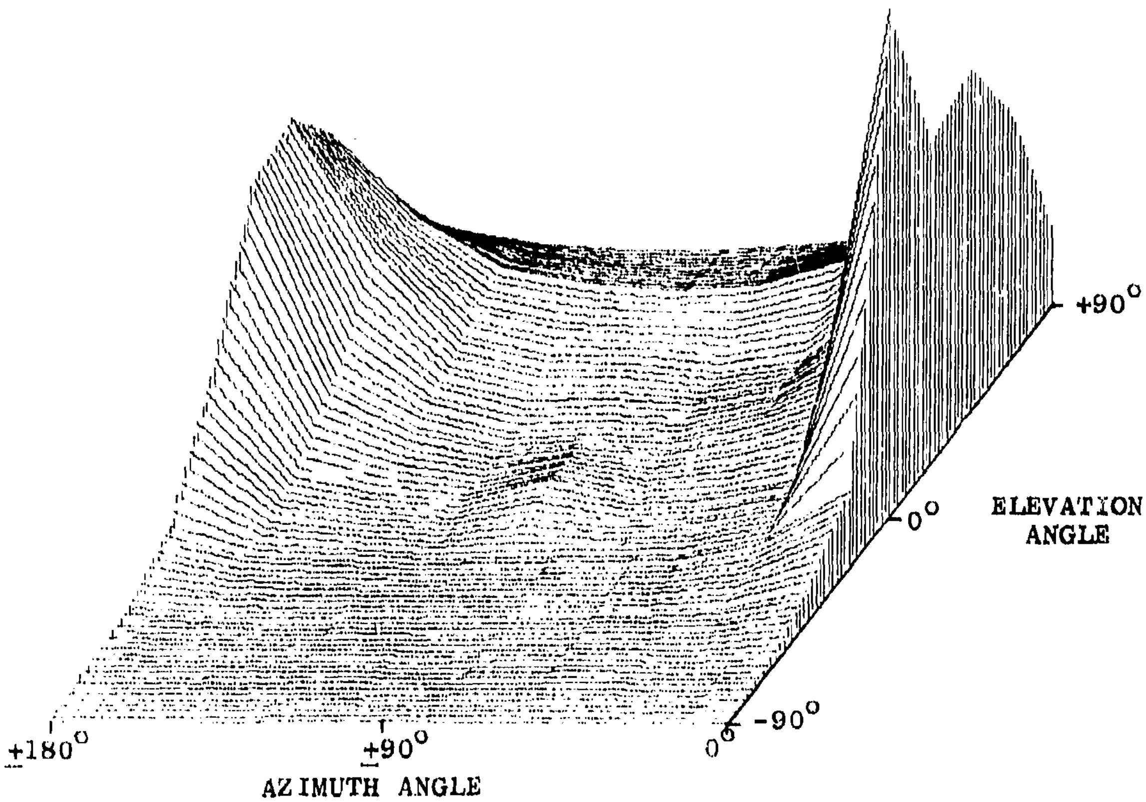


FIG. A-13 - TAPE 6 - FIGHTER 2 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

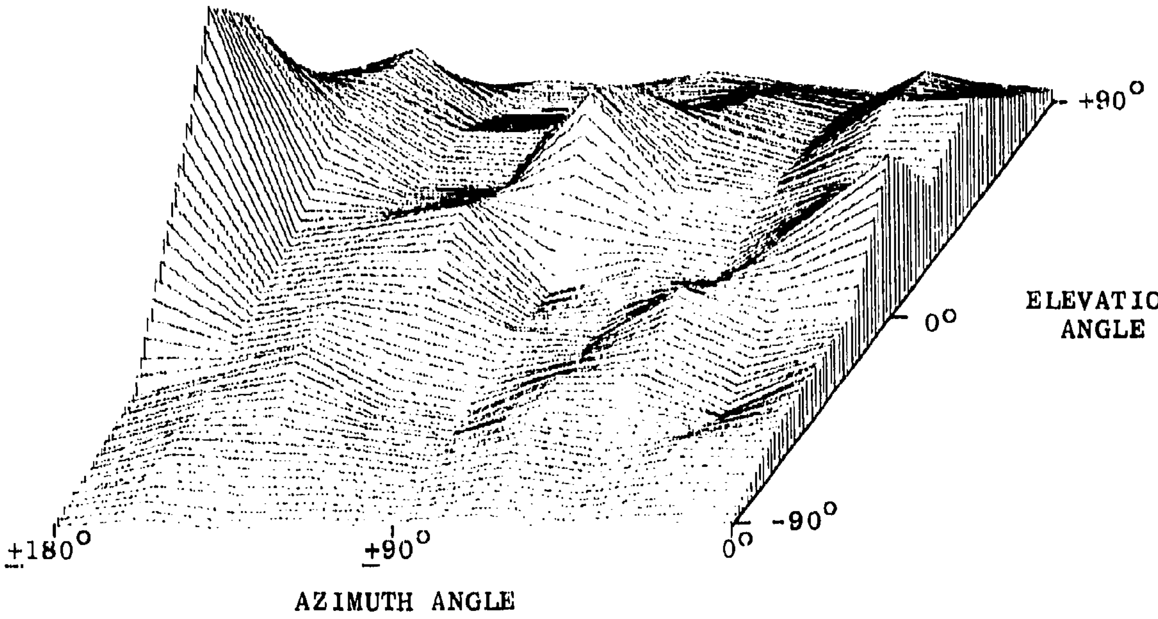


FIG.A-14 - TAPE 101 - FIGHTER 1 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

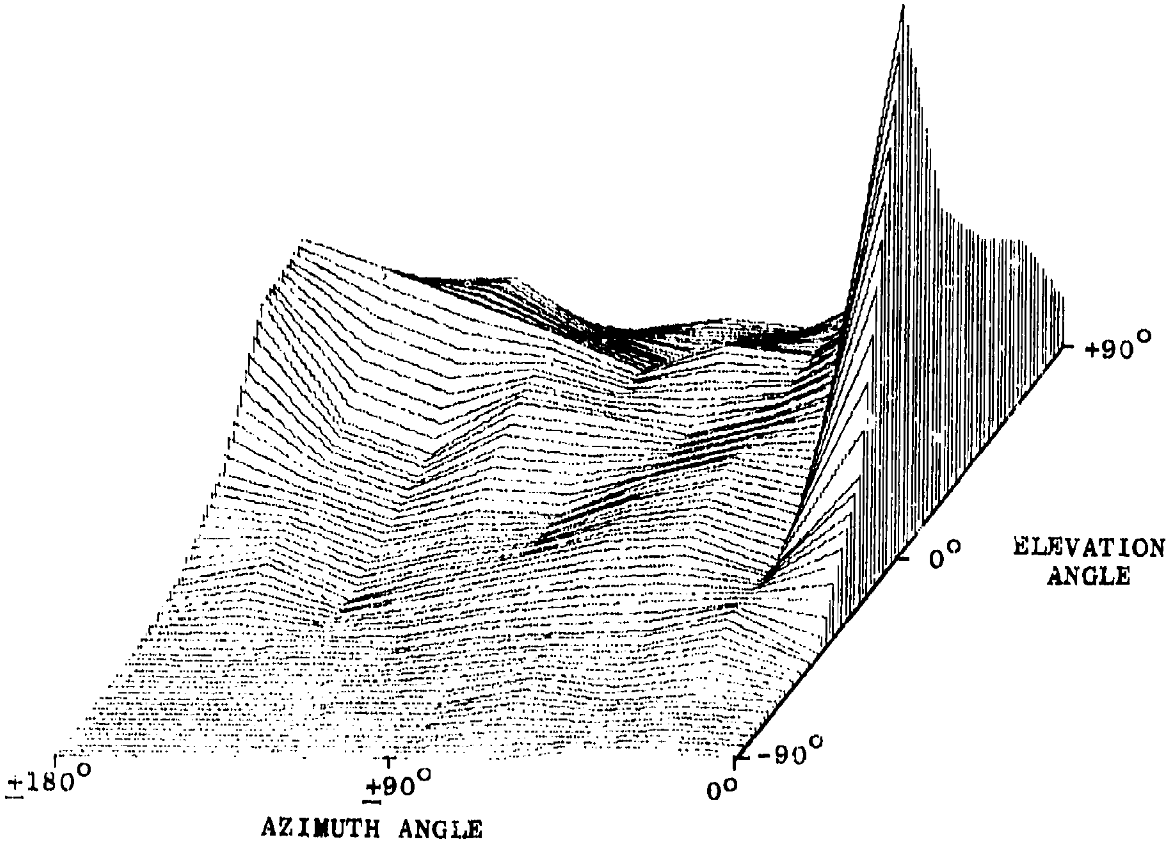


FIG. A-15- TAPE 101 - FIGHTER 2 - ELEVATION ANGLE VERSUS AZIMUTH ANGLE VERSUS FREQUENCY OF OCCURRENCE.

3. Angle off boresight versus range to the target versus frequency of occurrence plots are shown in Fig. A-16 through A-29.

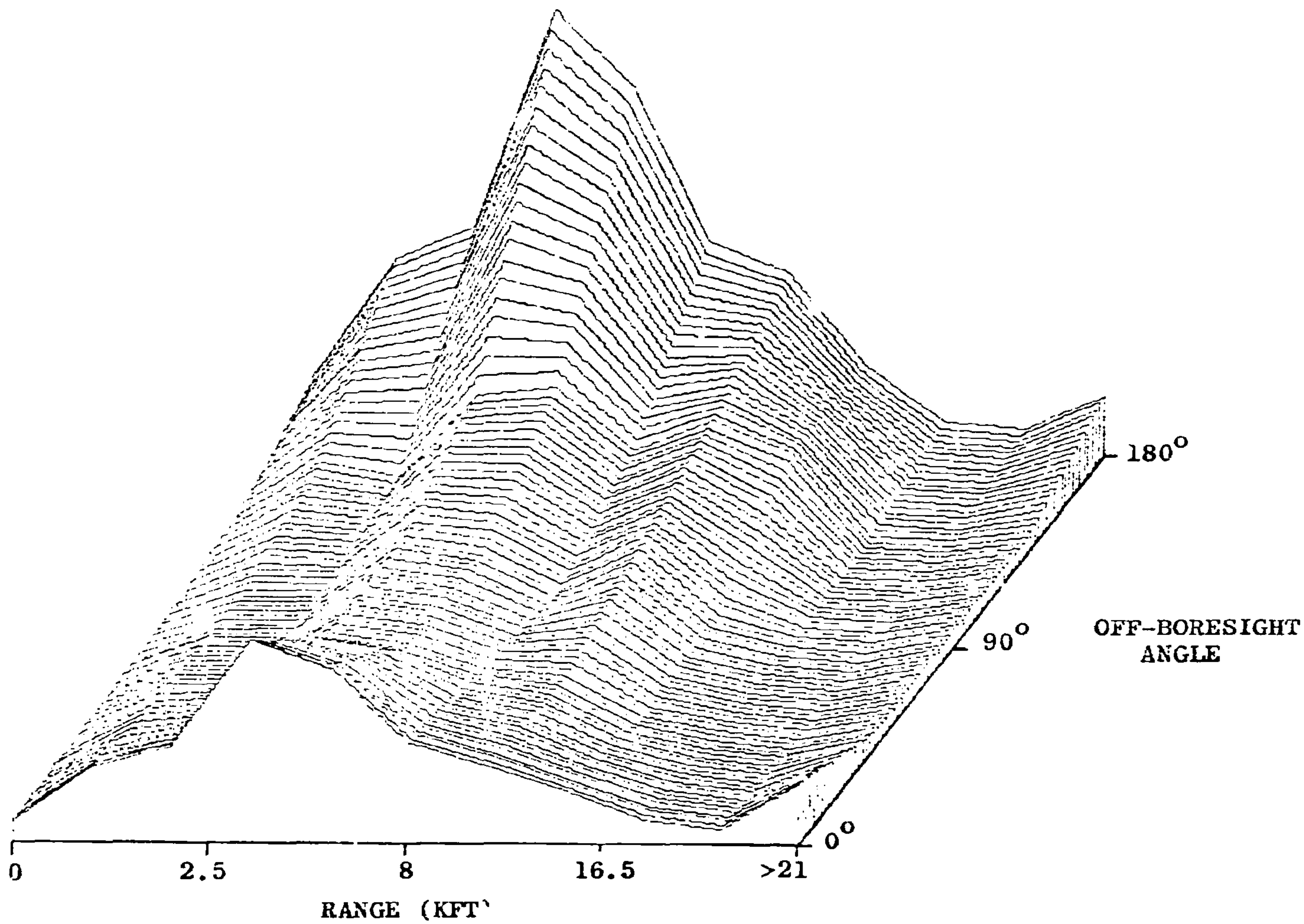


FIG. A-16 - TAPE 1 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

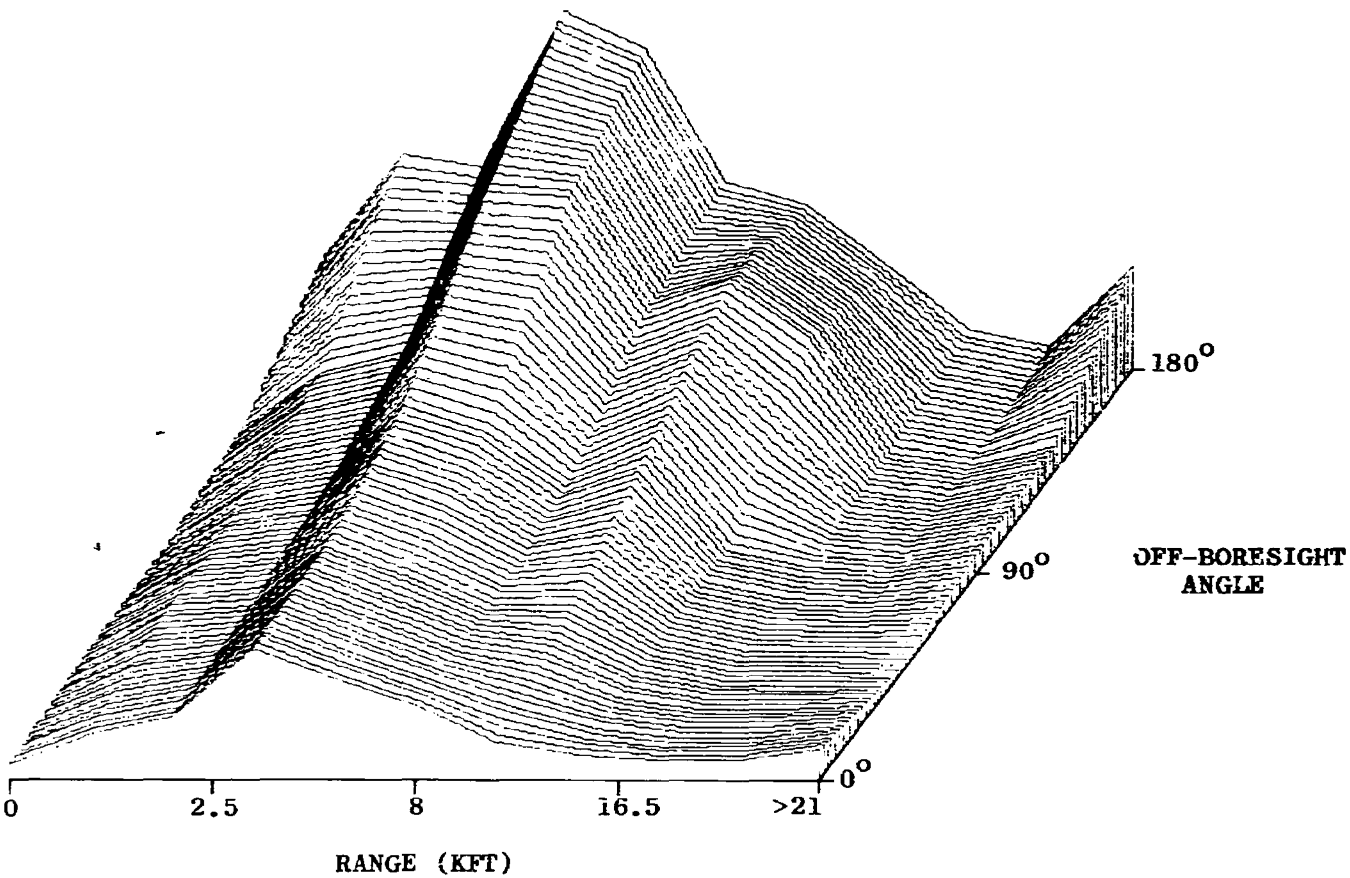


FIG. A-17 TAPE 1 - FIGHTER 2 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

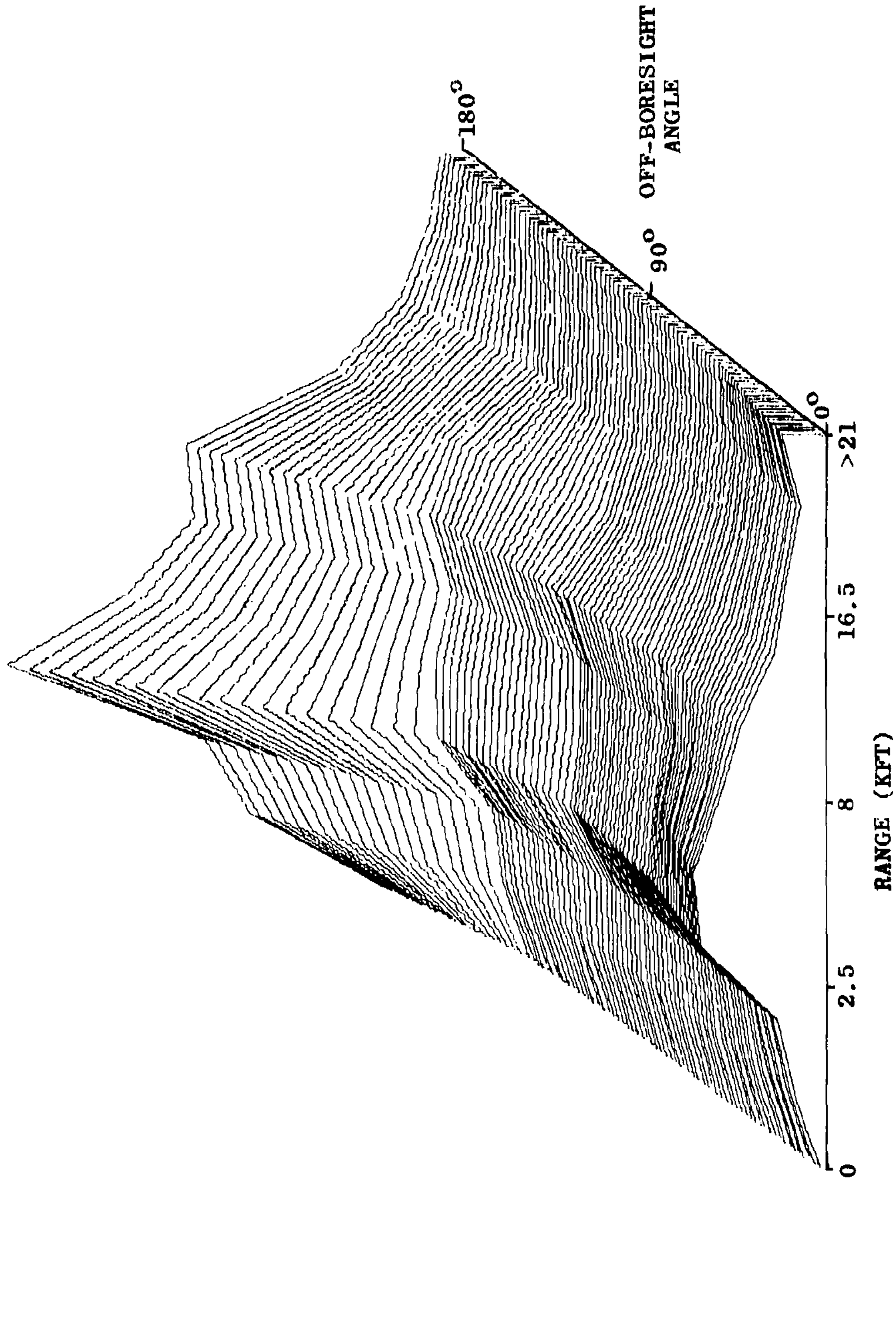


FIG. A-18 - TAPE 2 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

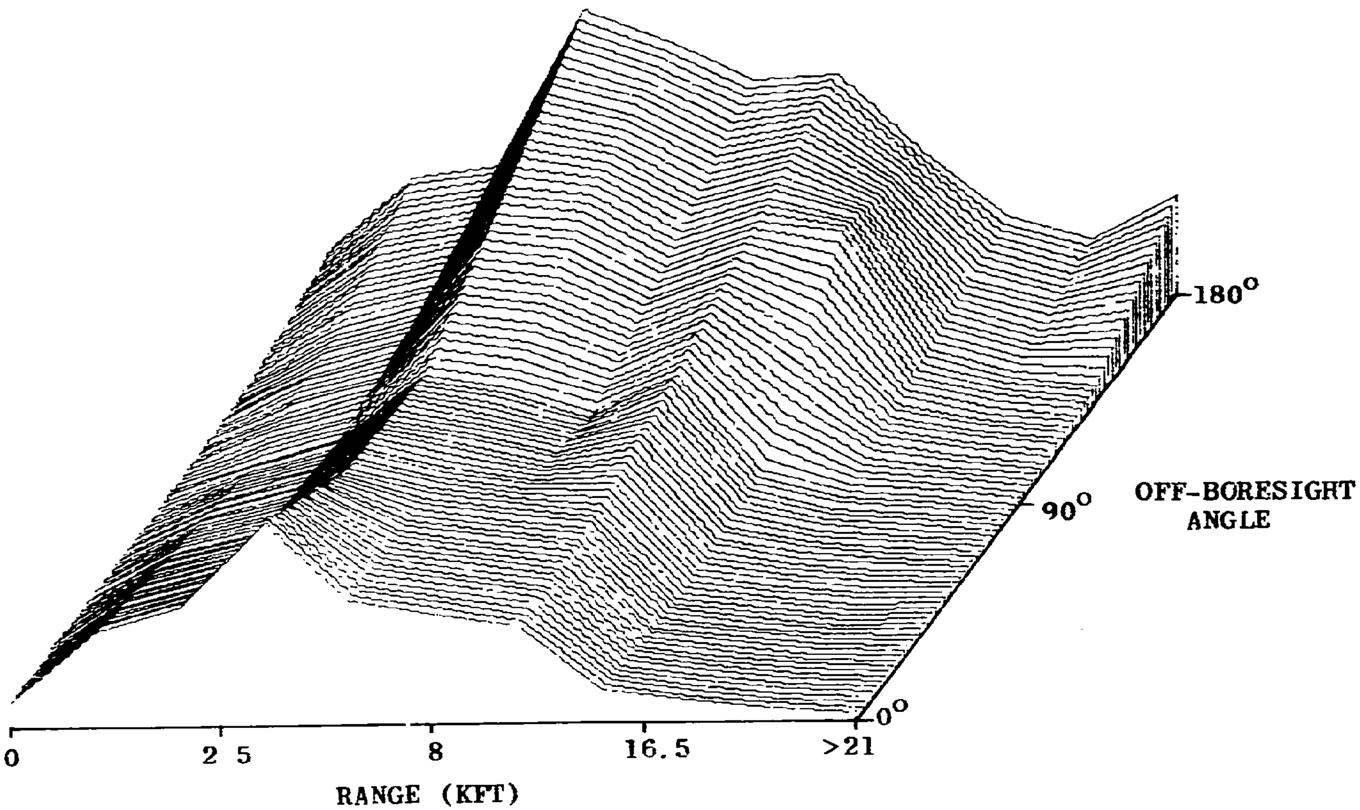


FIG. A-19- TAPE 2 - FIGHTER 2 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

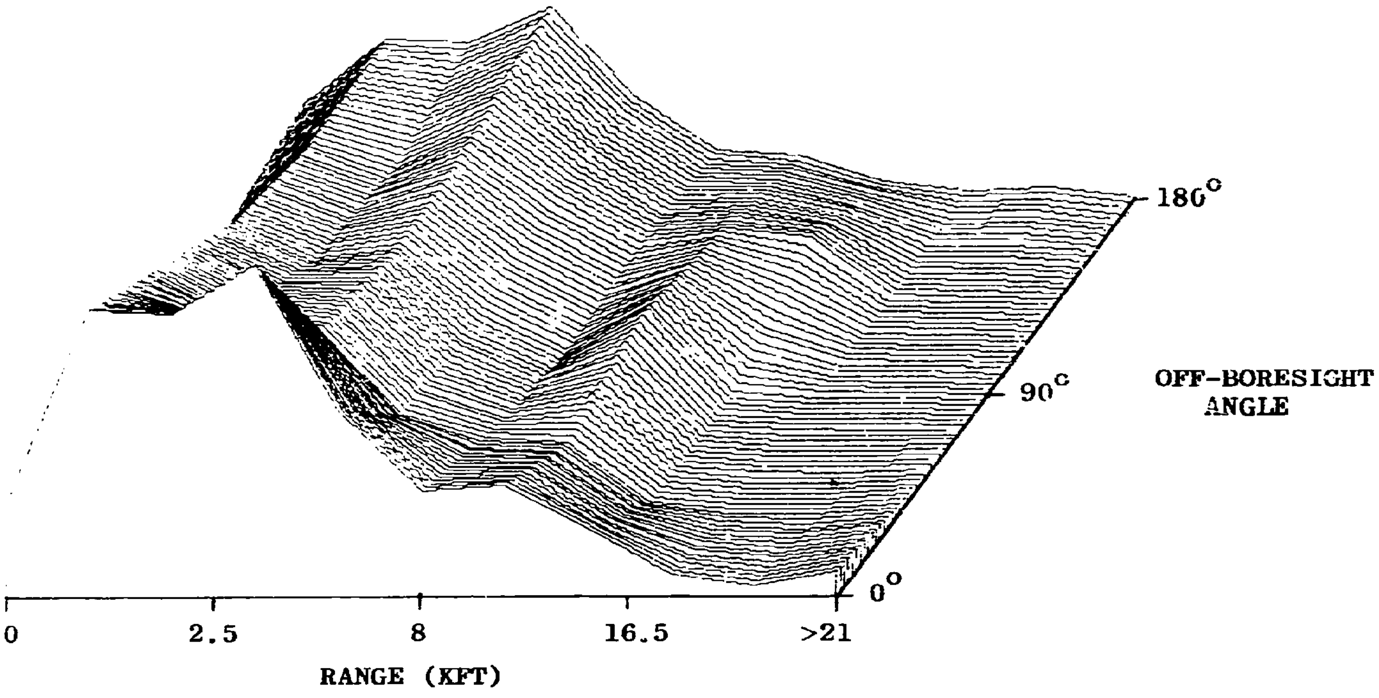


FIG. A-20- TAPE 3 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

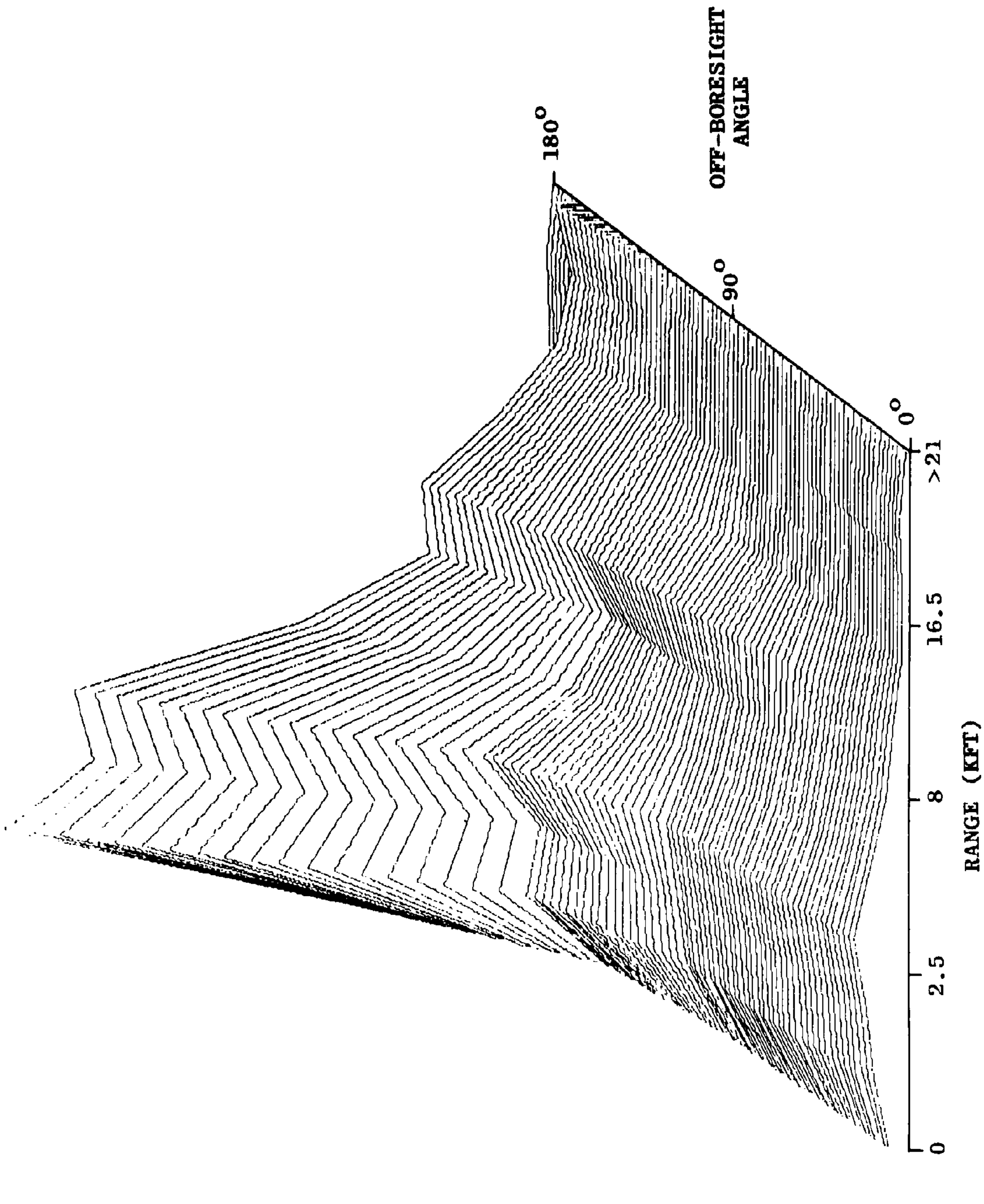


FIG. A-21- TAPE 3 - FIGHTER 2 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

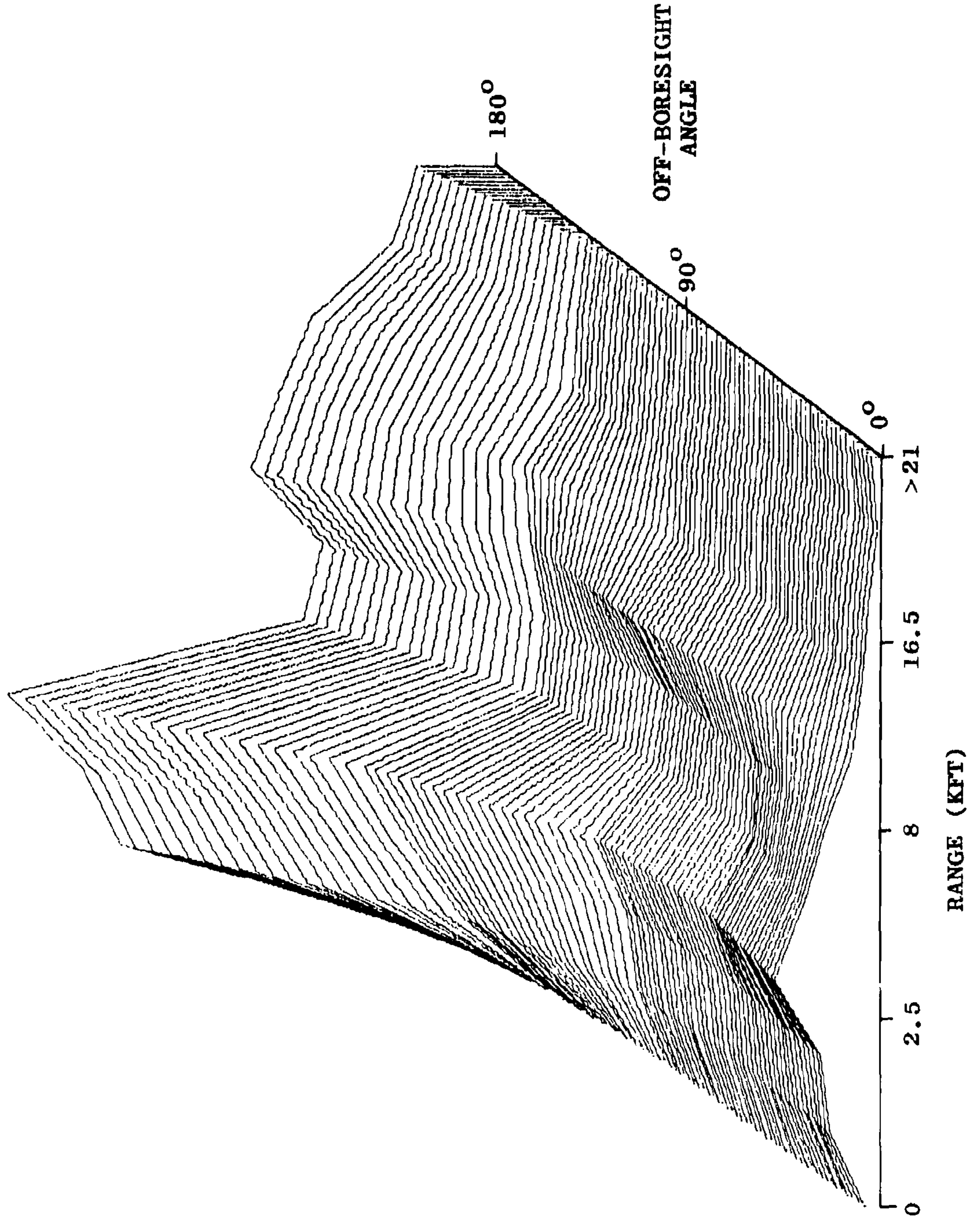


FIG.A-22 - TAPE 4 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

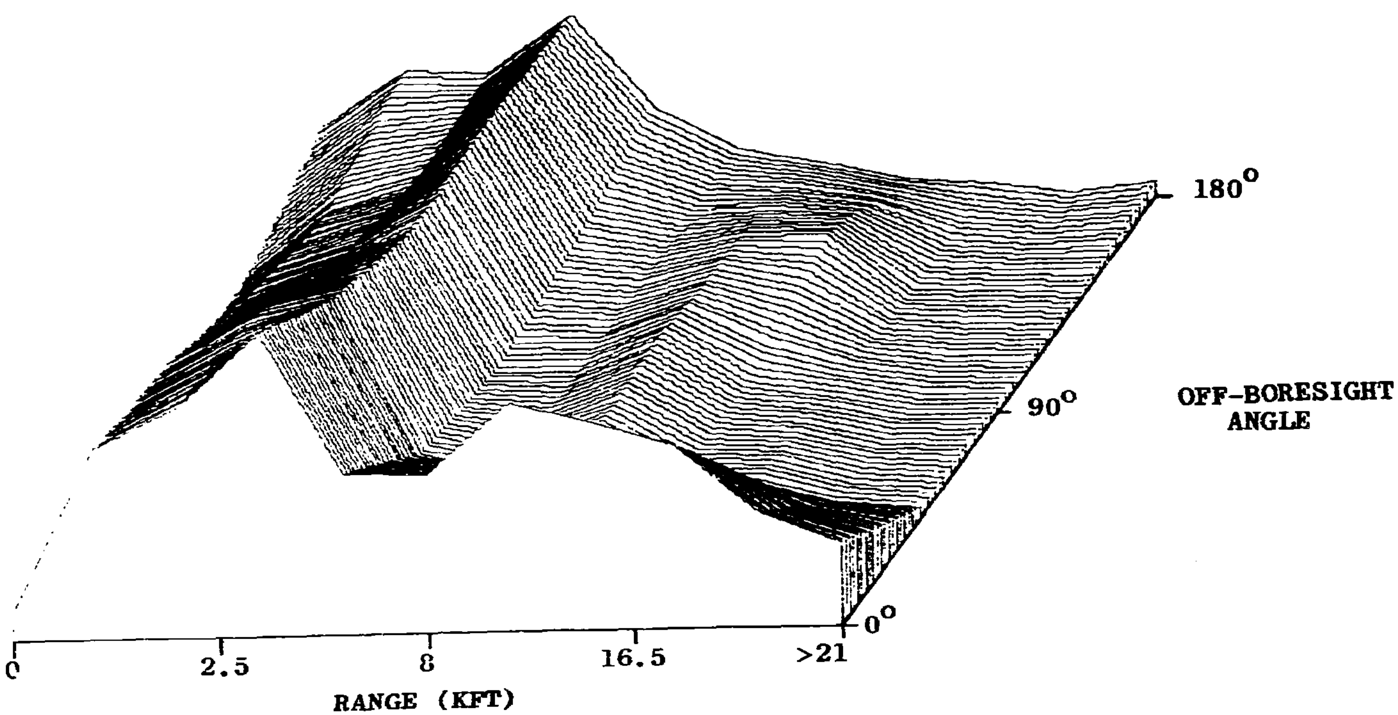


FIG. A-23- TAPE 4 - FIGHTER 2 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

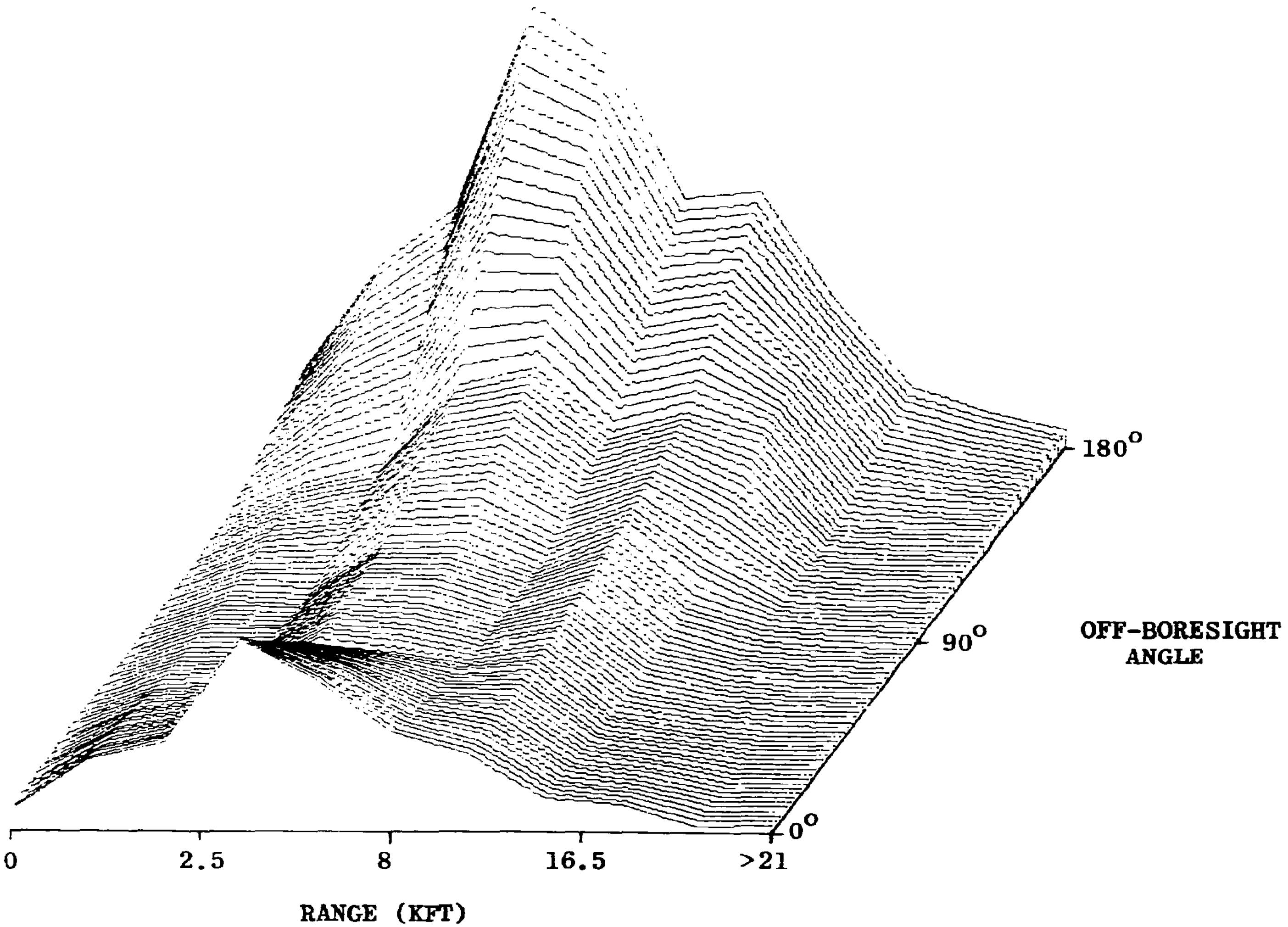


FIG. A-24- TAPE 5 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

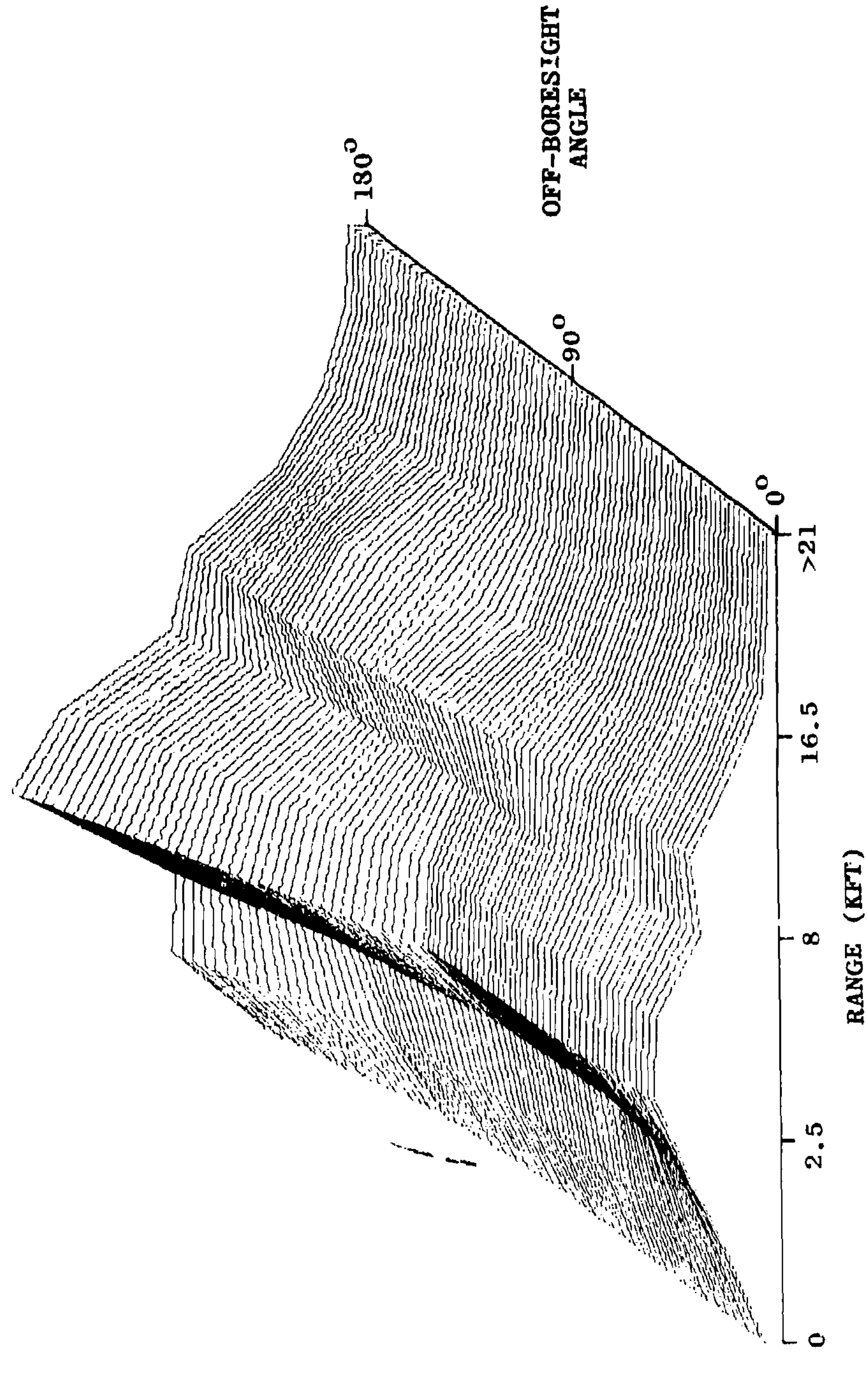


FIG. A-25- TAPE 5 - FIGHTER 2 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

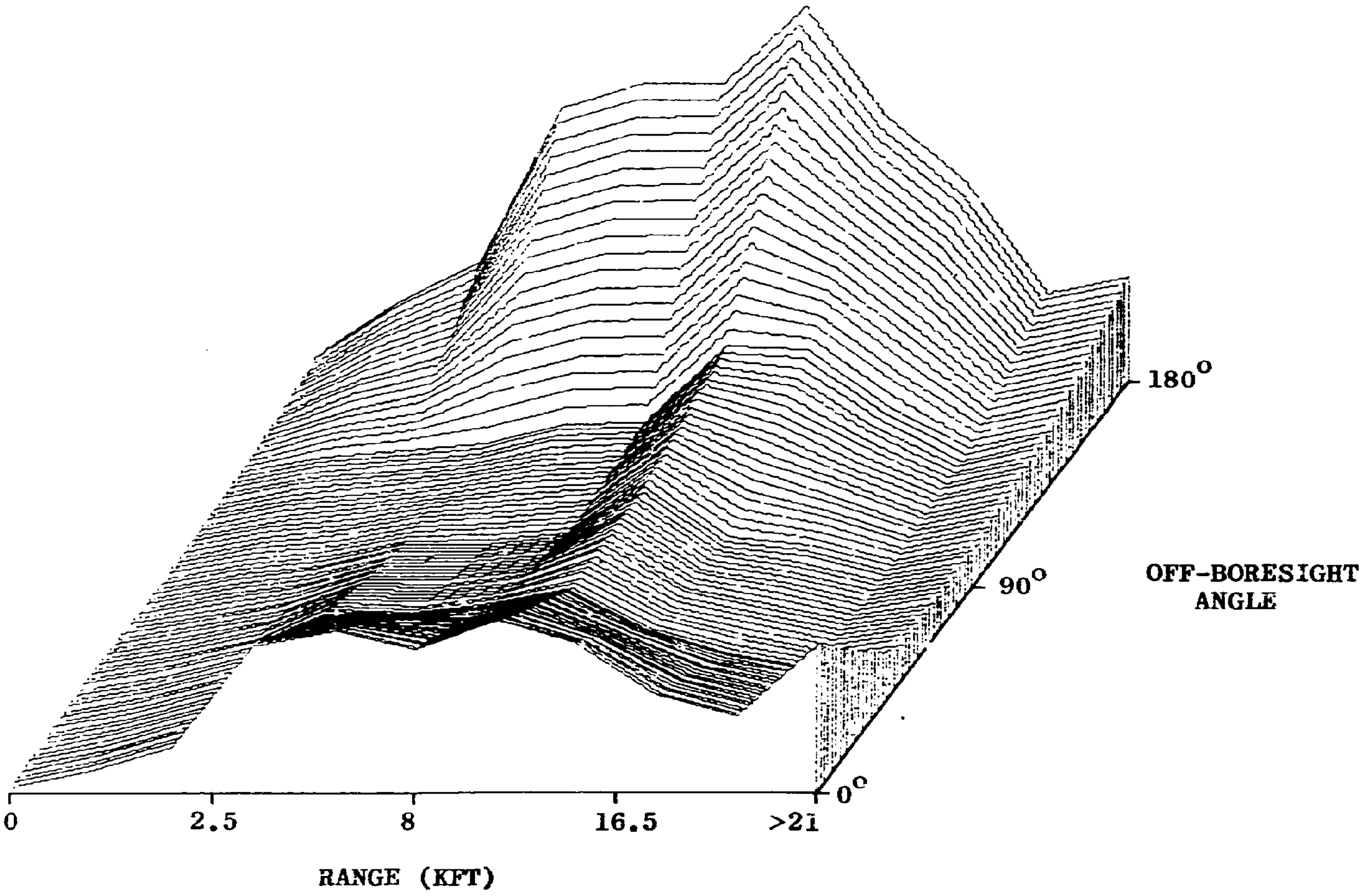


FIG. A-26- TAPE 6 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

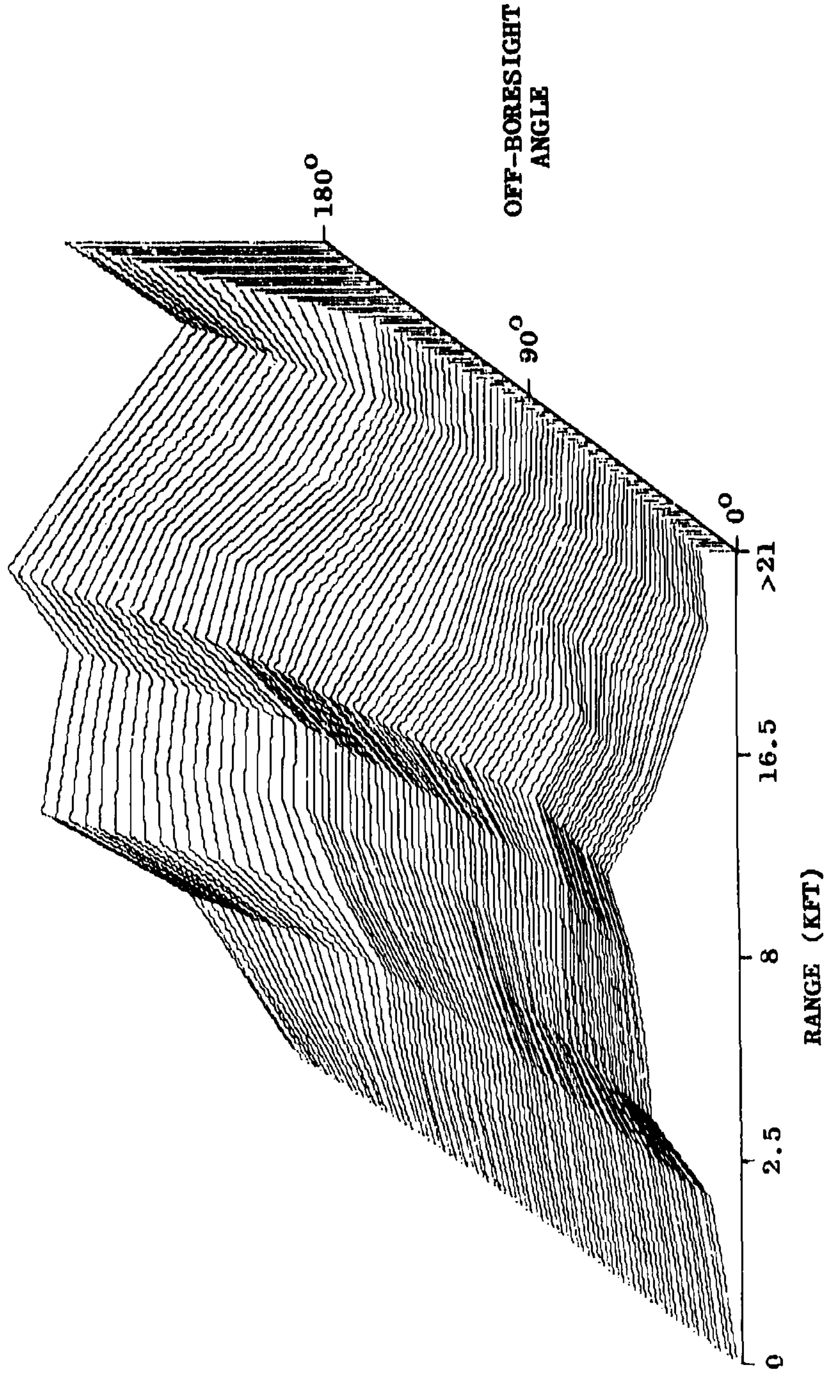


FIG. A-27- TAPE 6 - FIGHTER 2 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

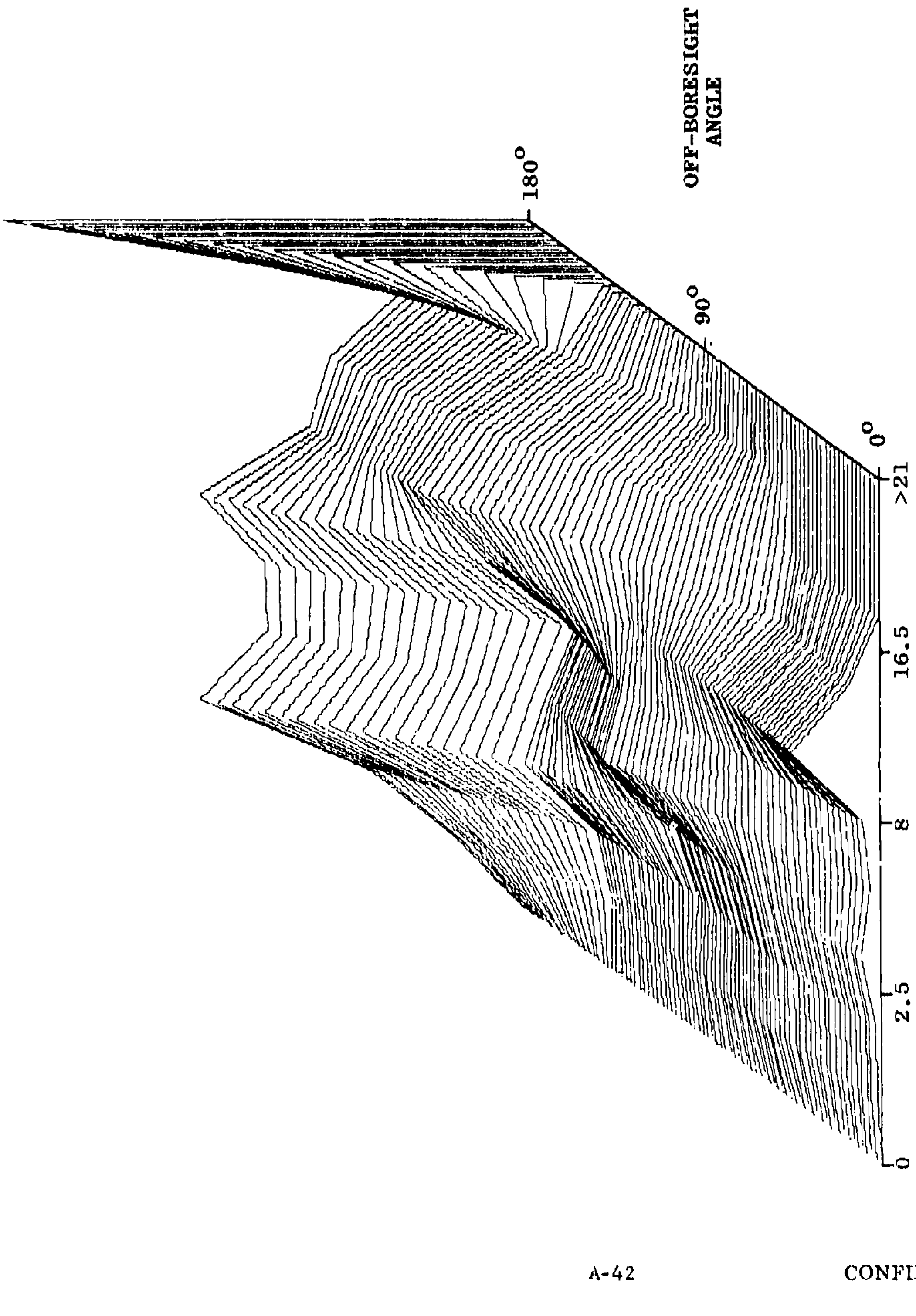


FIG. A-28 - TAPE 101 - FIGHTER 1 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

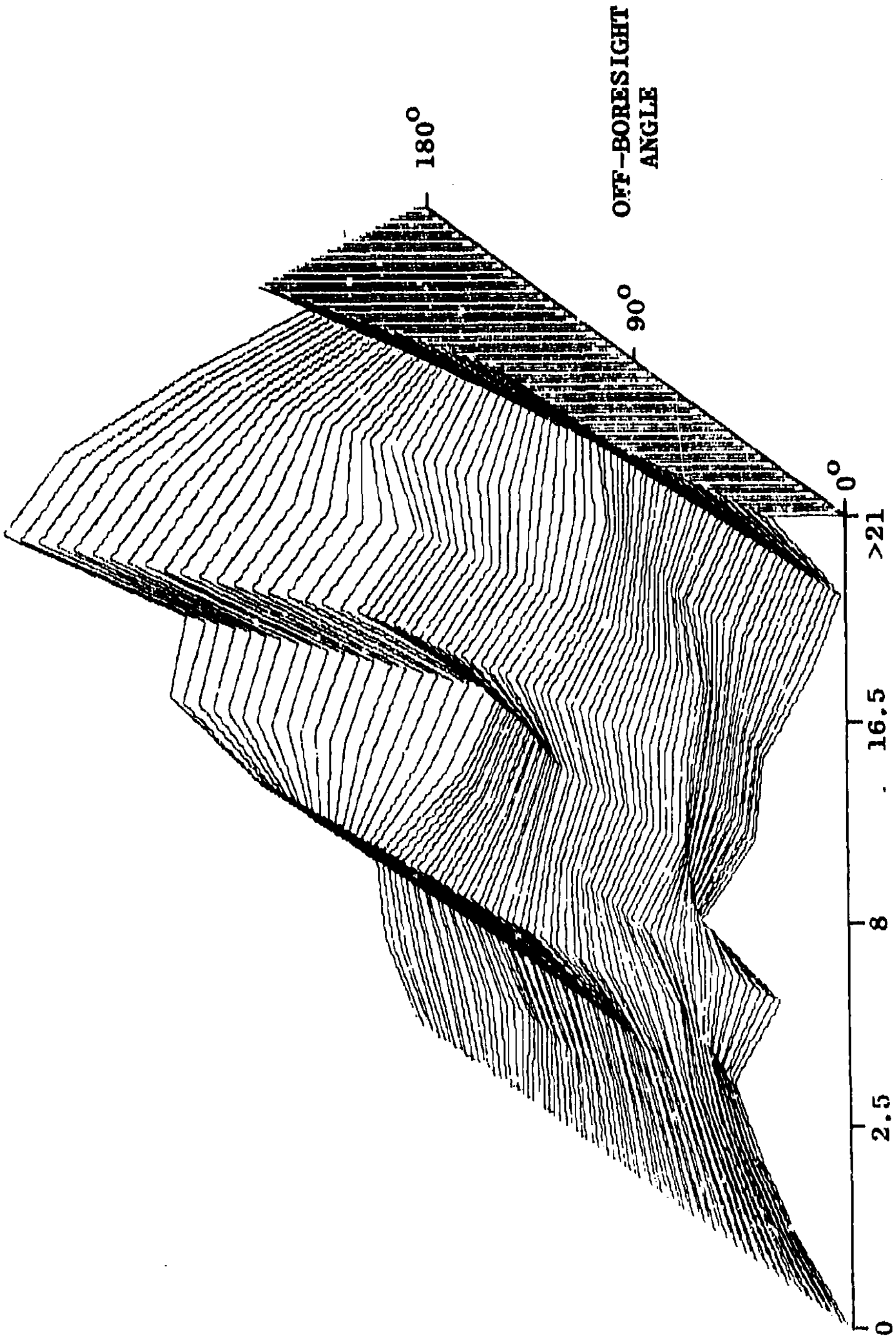


FIG. A-29 TAPE 101 - FIGHTER 2 - RANGE VERSUS OFF-BORESIGHT ANGLE VERSUS FREQUENCY OF OCCURRENCE.

4. Tracking parameters as a function of target position are contained in the following figures:

a. Percent of time target is in sector - Fig. A-30 thru A-37.

b. Range - Figs. A-38 through A-45.

c. Range rate - Figs. A-46 through A-53.

d. Range acceleration - Figs. A-54 through A-61.

e. Azimuth line of sight rate - Figs. A-62 through A-69.

f. Azimuth line of sight acceleration - Figs. A-70 through A-77.

g. Elevation line of sight rate - Figs. A-78 through A-85.

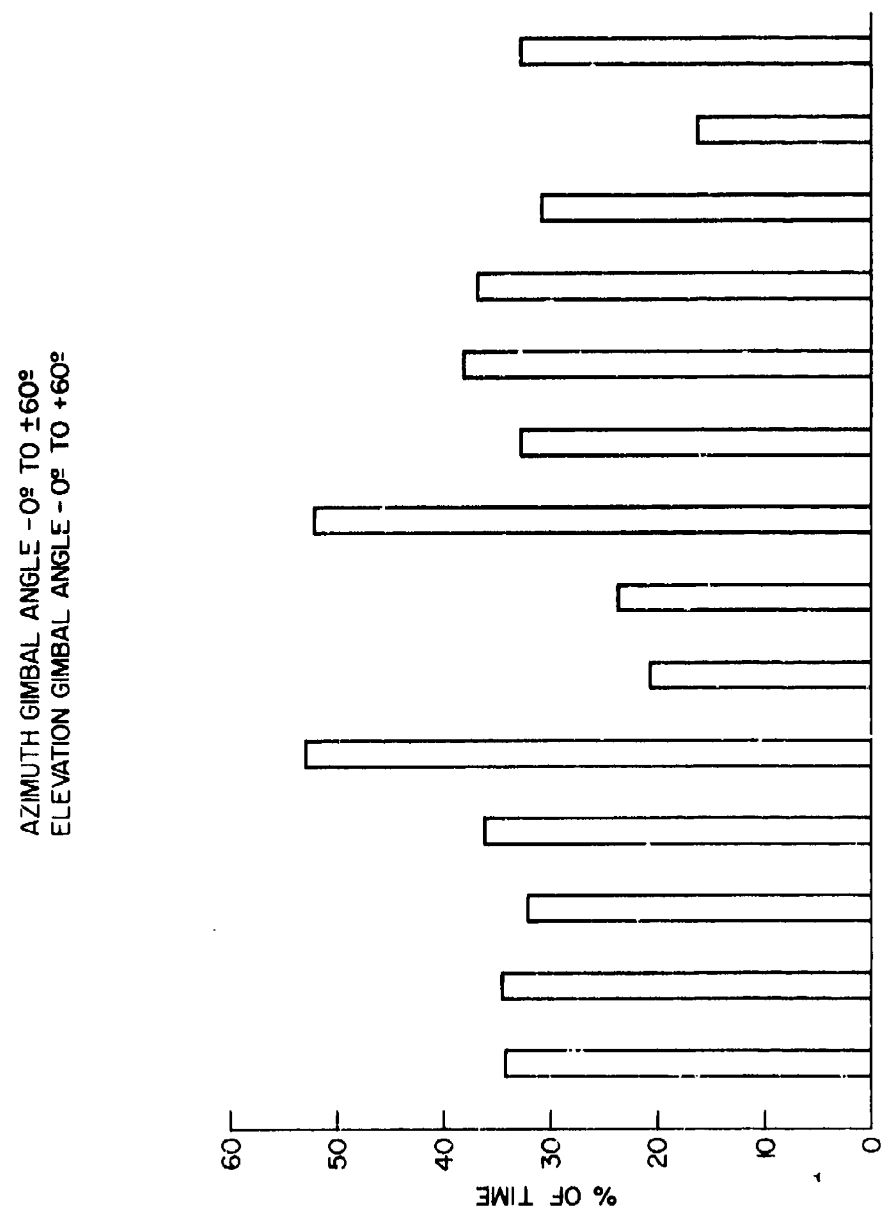
h. Elevation line of sight acceleration - Figs. A-86 through A-93.

i. Azimuth gimbal rate - Figs. A-94 through A-101.

j. Azimuth gimbal acceleration - Figs. A-102 through A-109.

k. Elevation gimbal rate - Fig. A-110 through A-117.

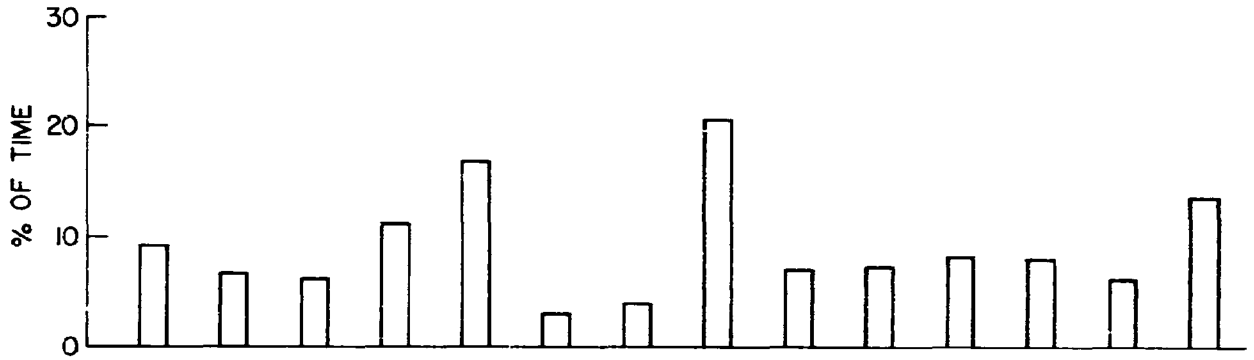
l. Elevation gimbal acceleration - Figs. A-118 through A-125.



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

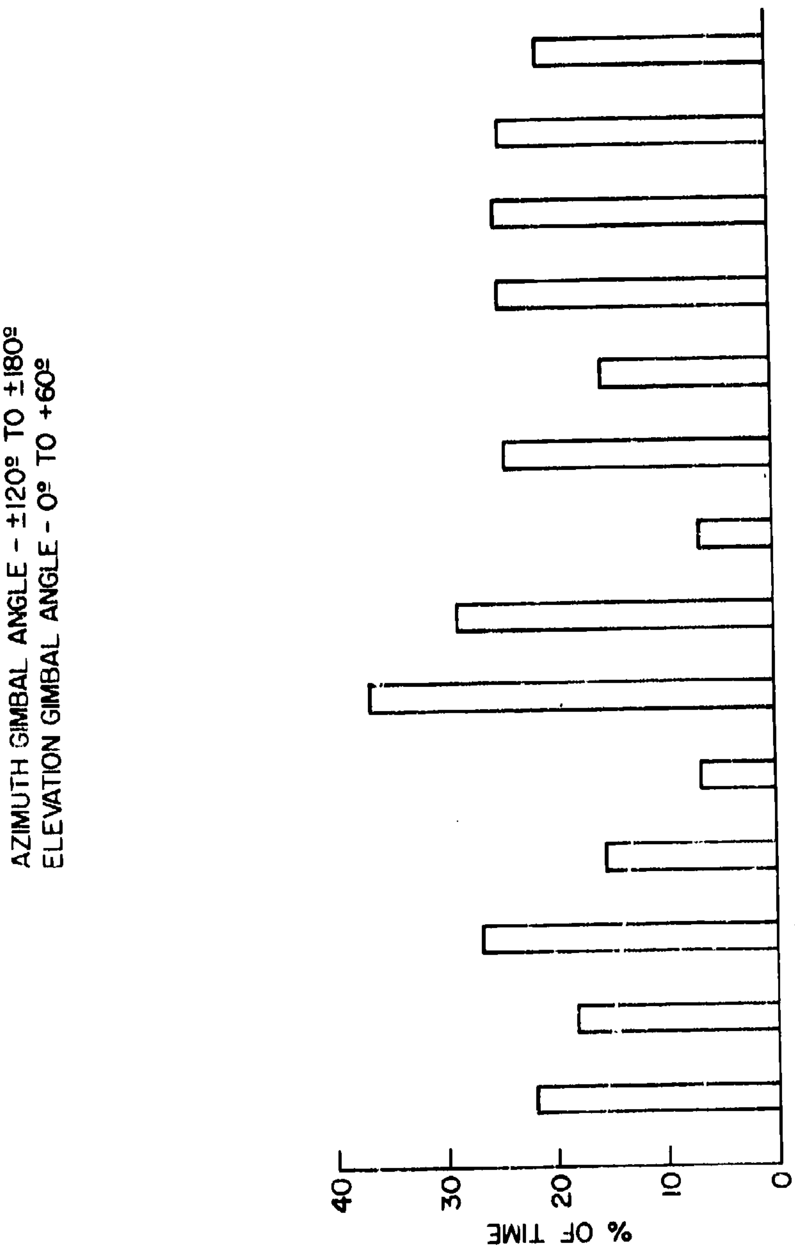
FIG. A-30- SUMMARY OF GIMBAL ANGLE

AZIMUTH GIMBAL ANGLE - 0° TO ±60°
ELEVATION GIMBAL ANGLE - -60° TO 0°



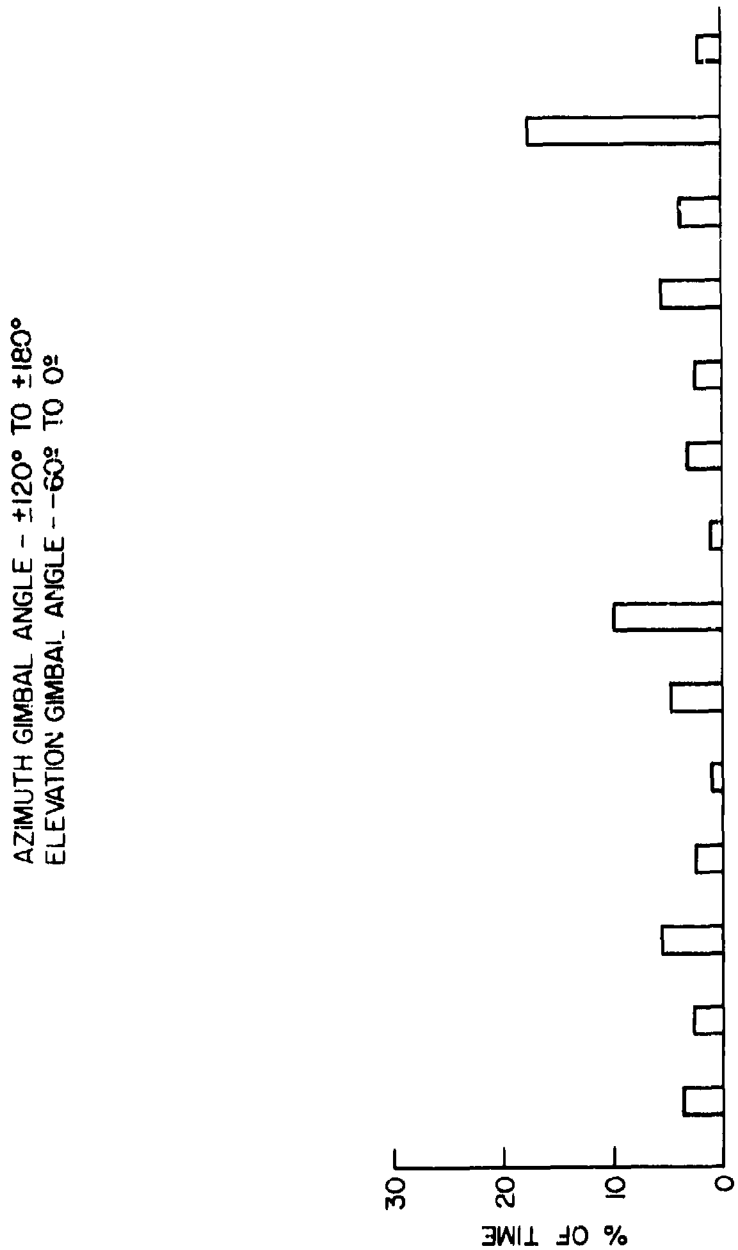
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG.A-31 - SUMMARY OF GIMBAL ANGLE



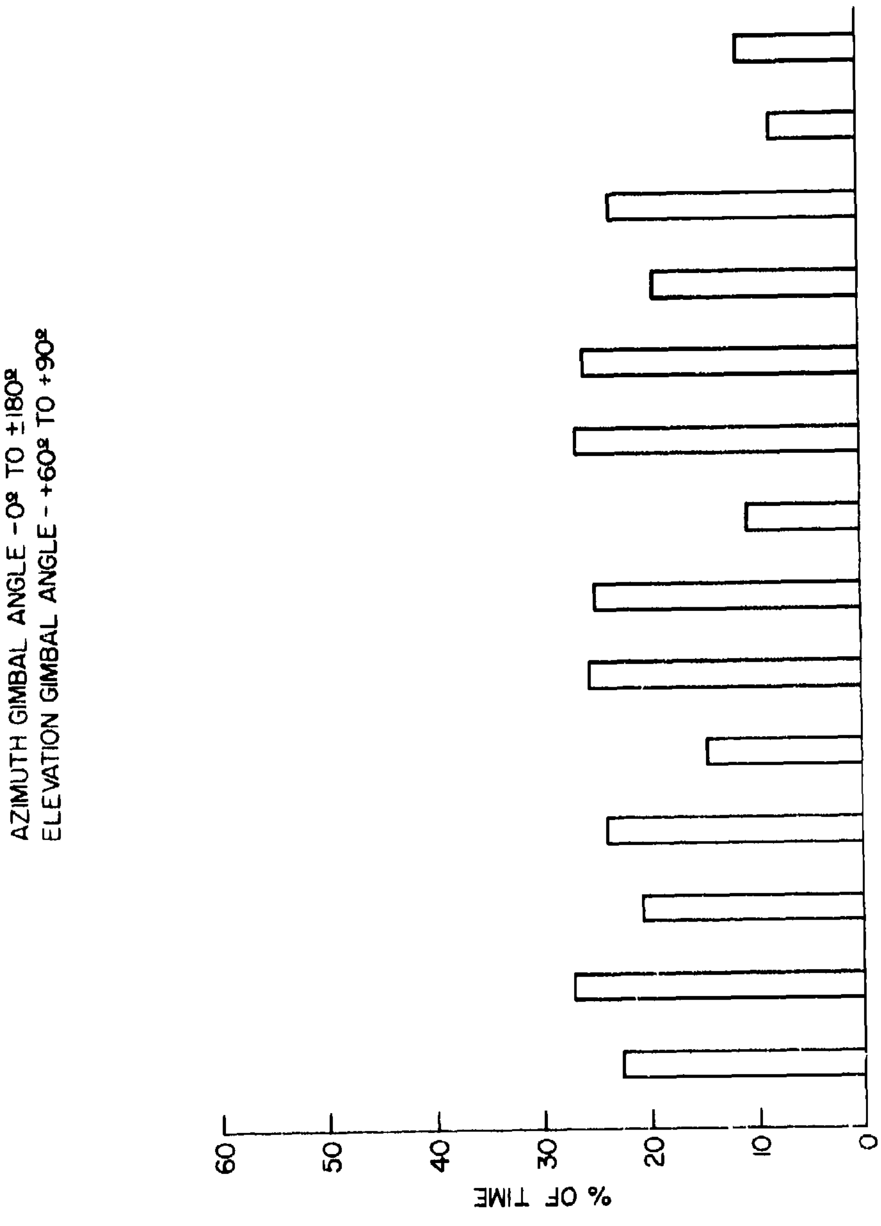
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-32 - SUMMARY OF GIMBAL ANGLE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

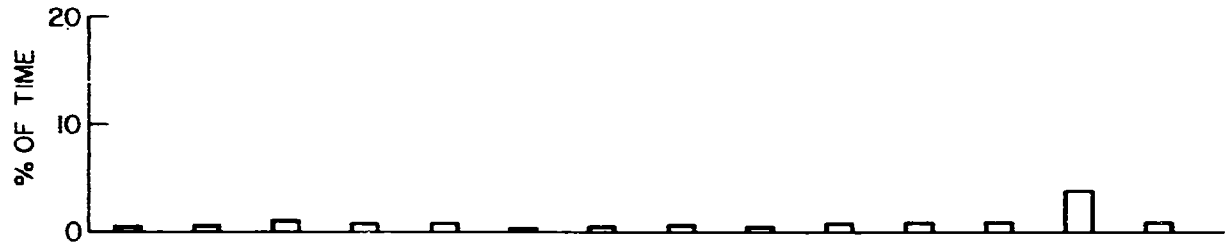
FIG. A-33 -SUMMARY OF GIMBAL ANGLE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

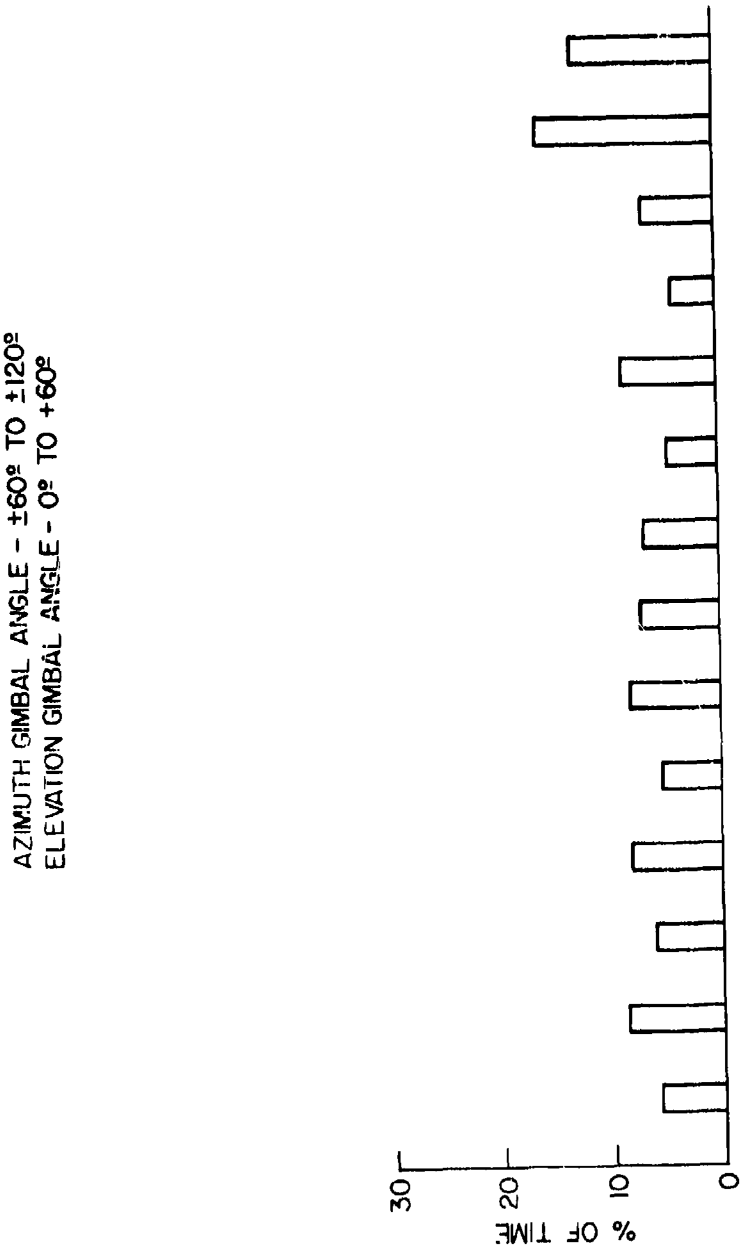
FIG. A-34 - SUMMARY OF GIMBAL ANGLE

AZIMUTH GIMBAL ANGLE - 0° TO ±180°
ELEVATION GIMBAL ANGLE - -90° TO -60°



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

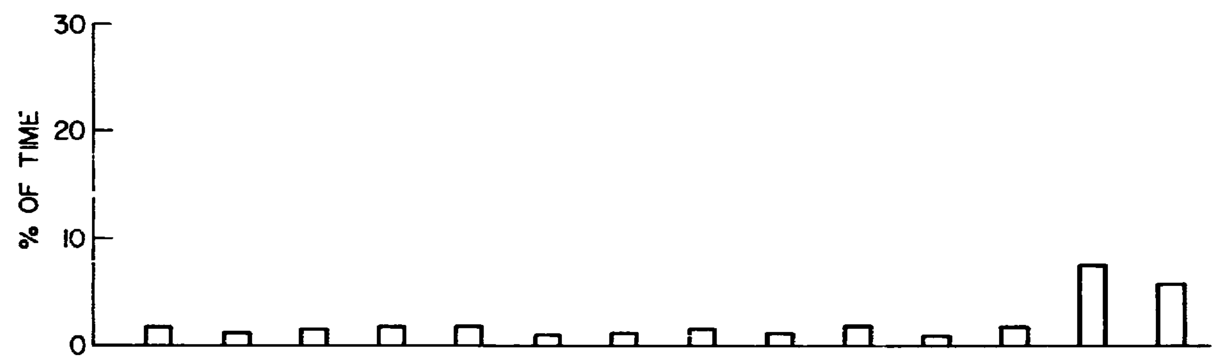
FIG. A-35 - SUMMARY OF GIMBAL ANGLE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

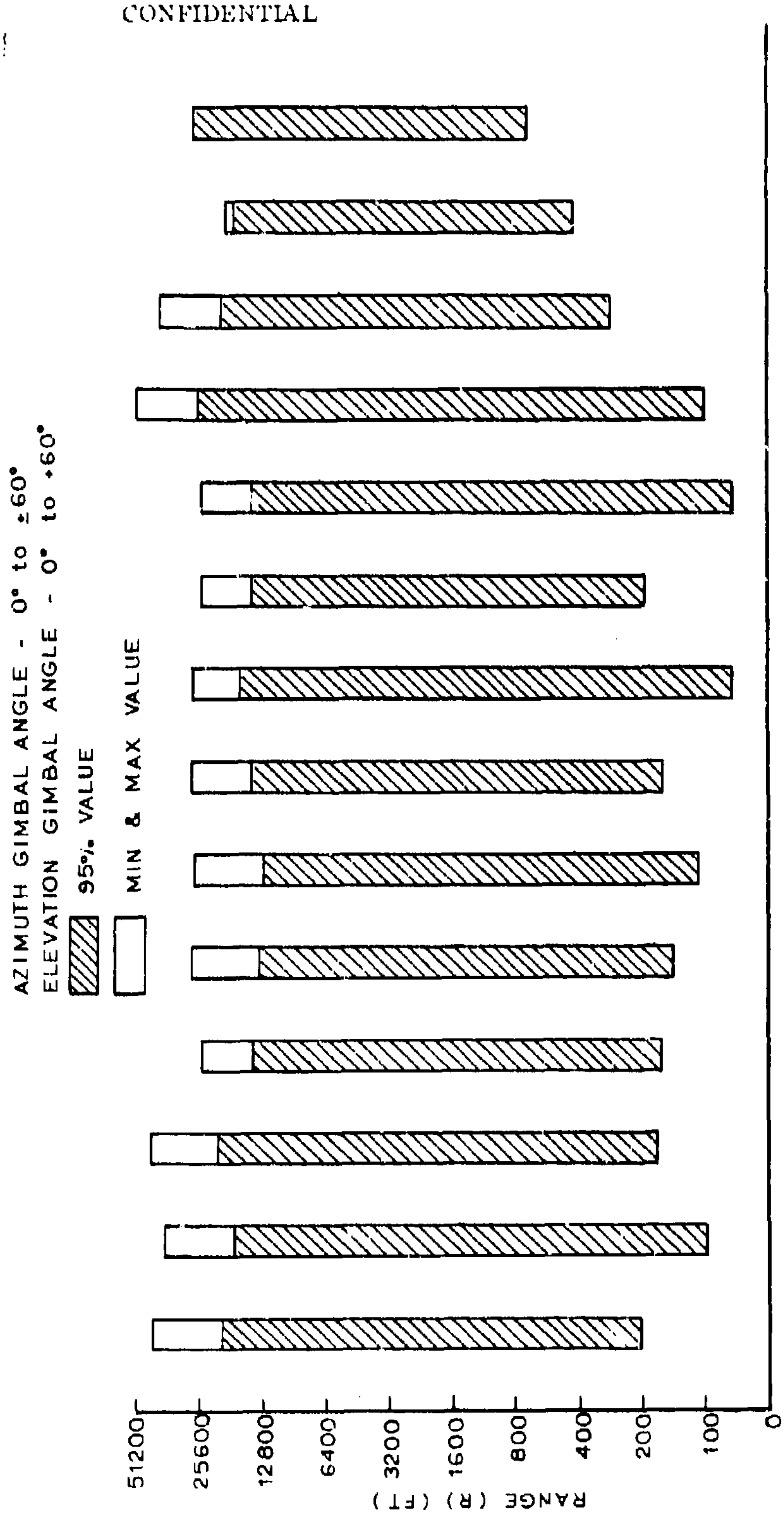
FIG. A-36-SUMMARY OF GIMBAL ANGLE

AZIMUTH GIMBAL ANGLE - ±60° TO ±120°
ELEVATION GIMBAL ANGLE - -60° TO 0°



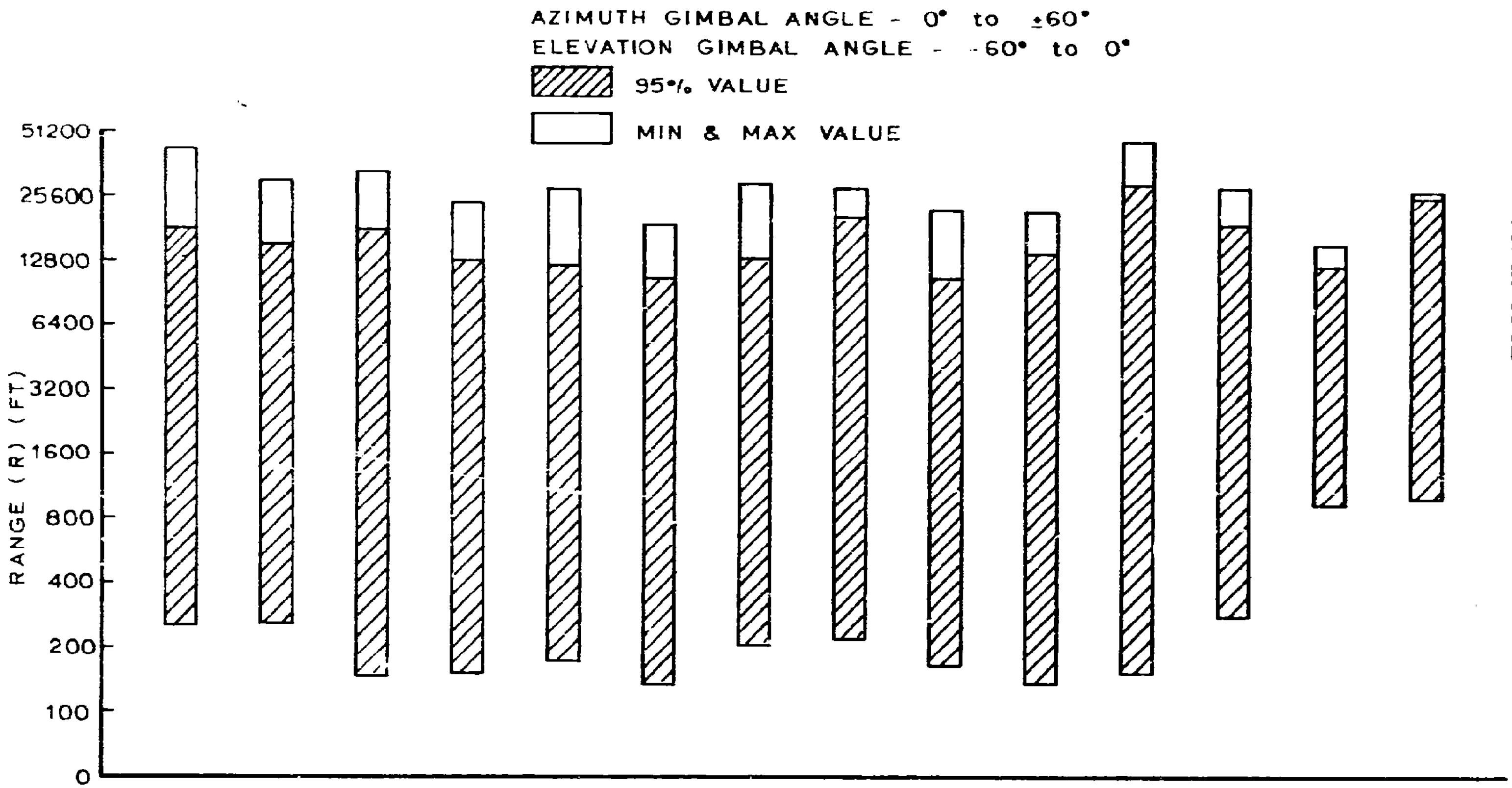
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-37 - SUMMARY OF GIMBAL ANGLE



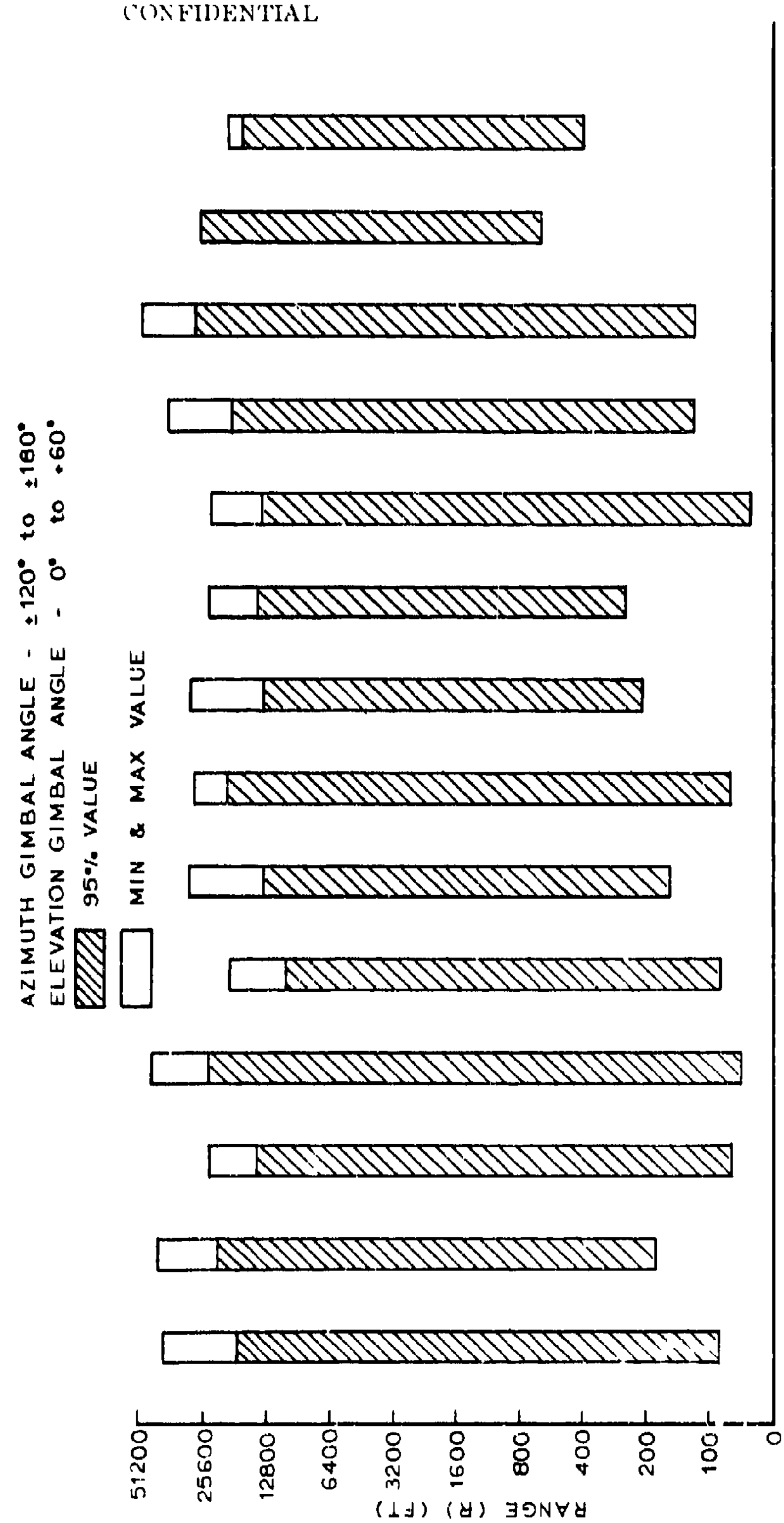
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-38 - SUMMARY OF RANGE



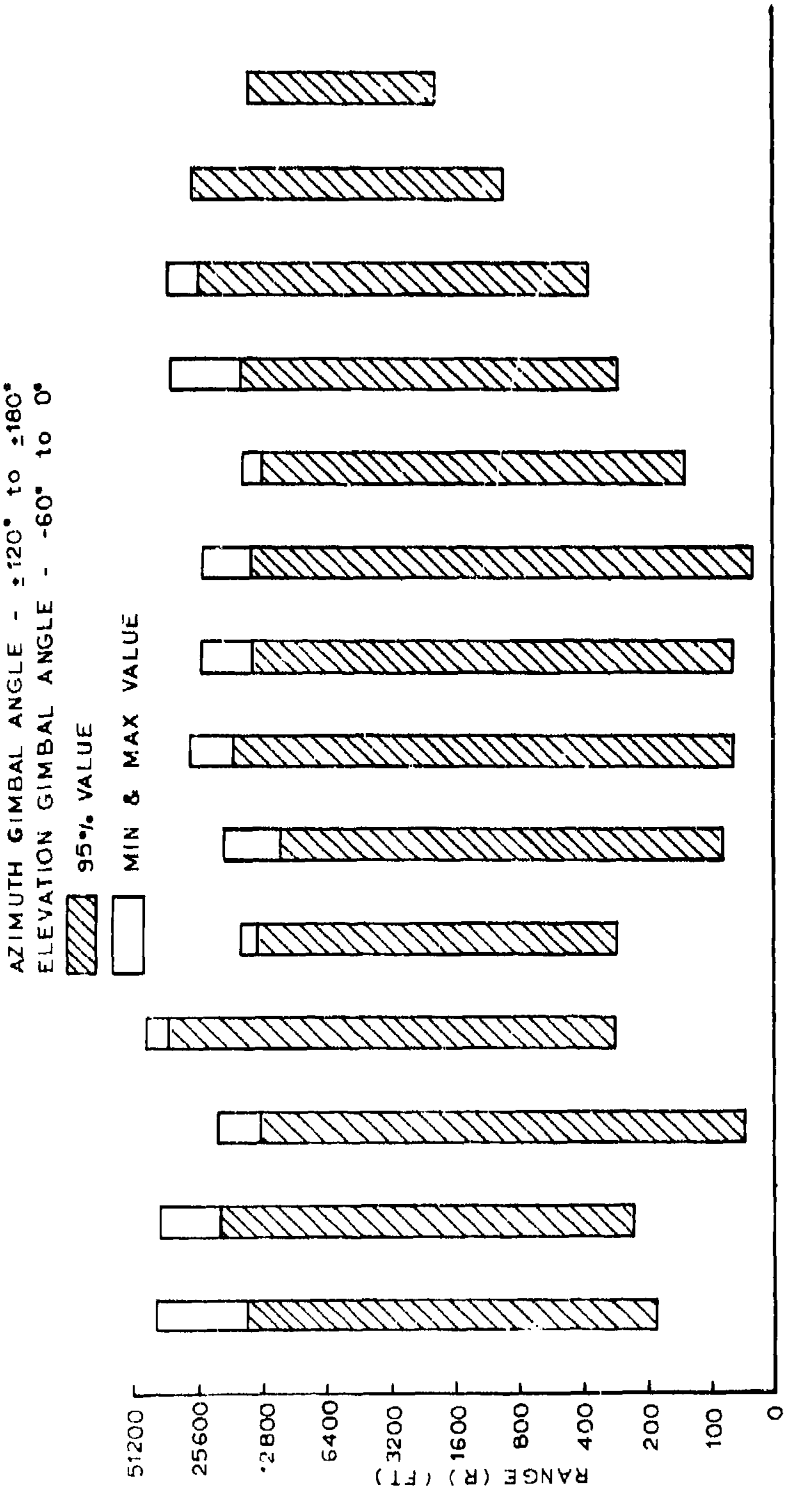
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	10[illegible]
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	[illegible]

FIG. A-39 - SUMMARY OF RANGE



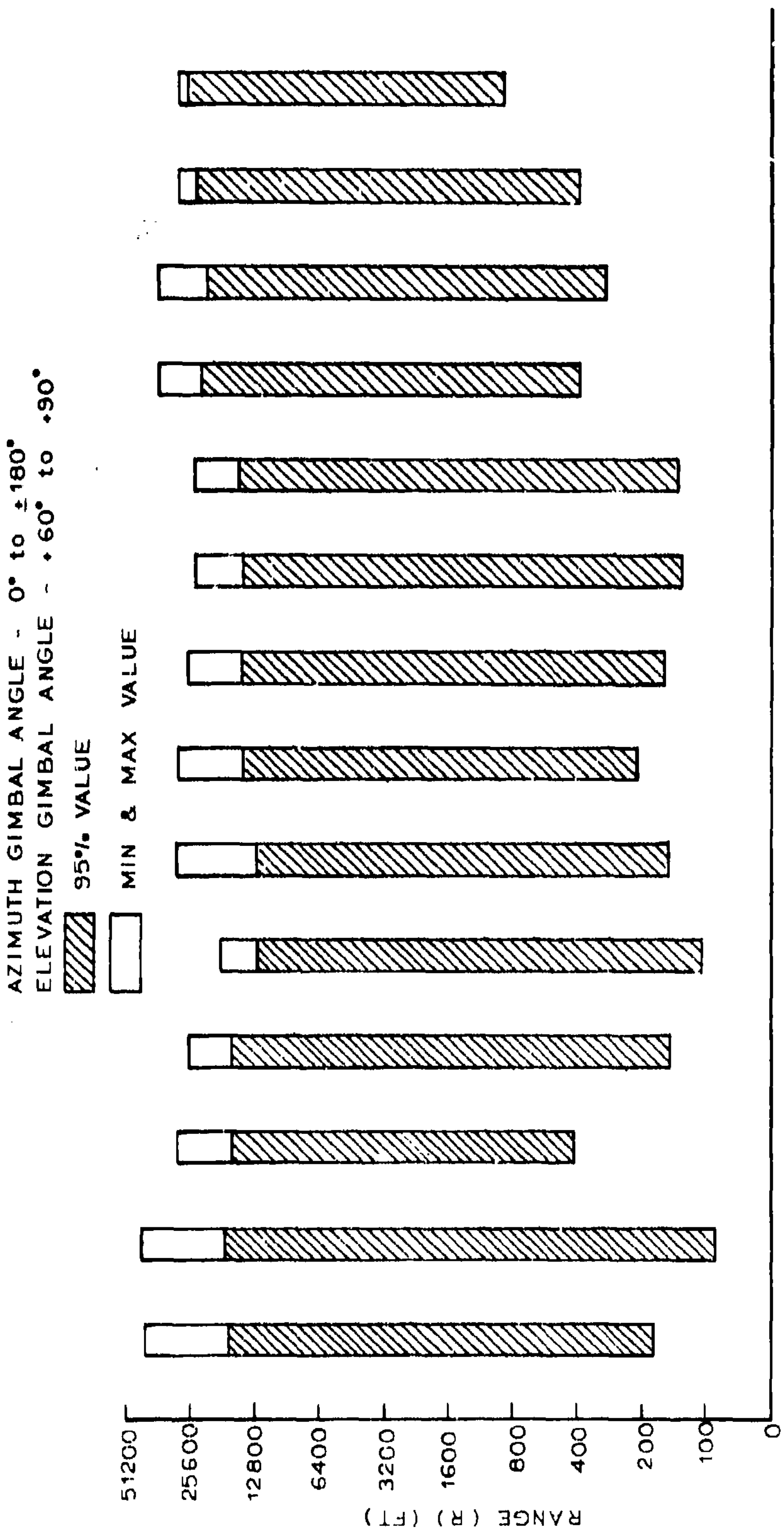
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	[illegible]	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-40 - SUMMARY OF RANGE



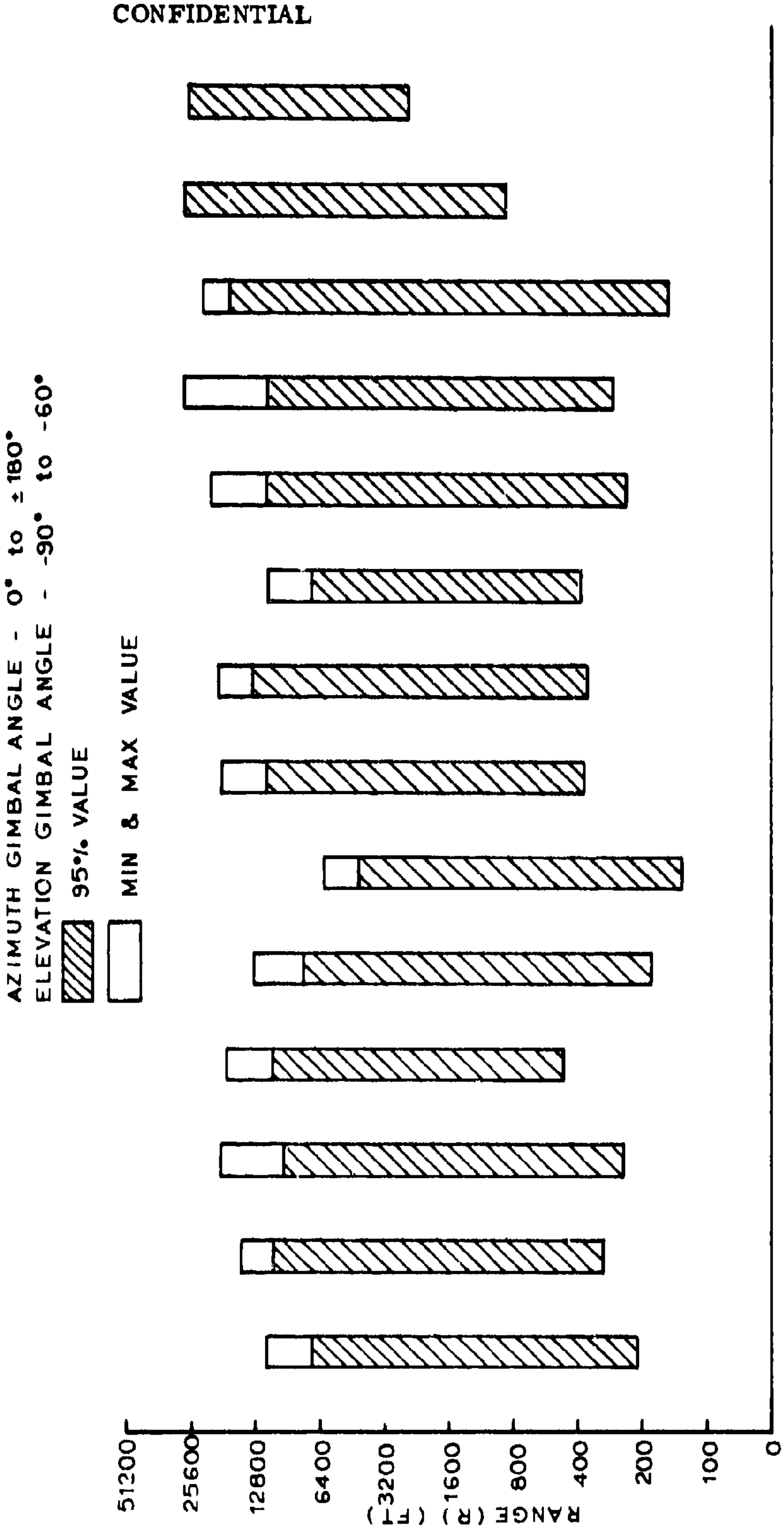
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-41 - SUMMARY OF RANGE



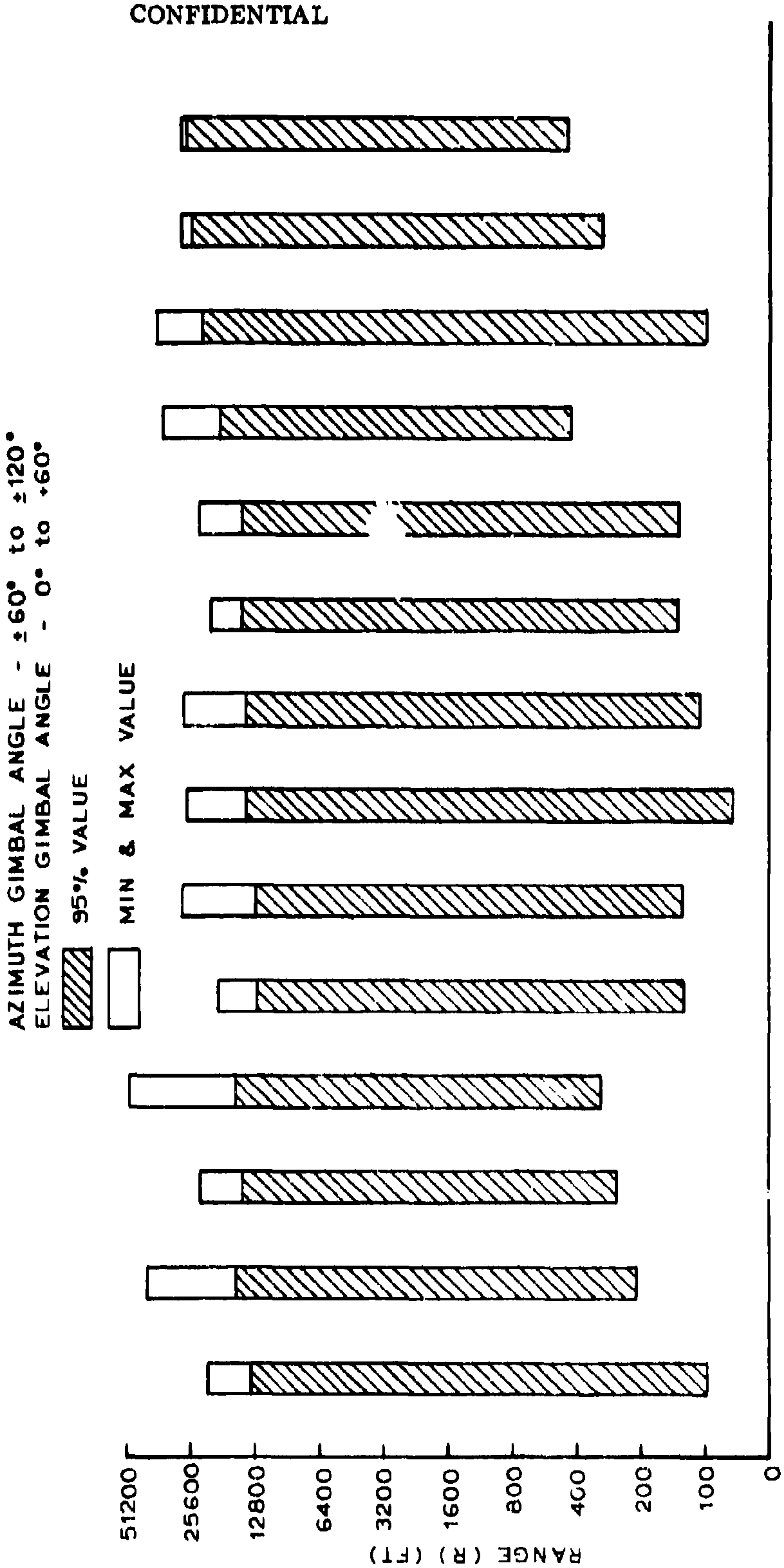
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-42 - SUMMARY OF RANGE



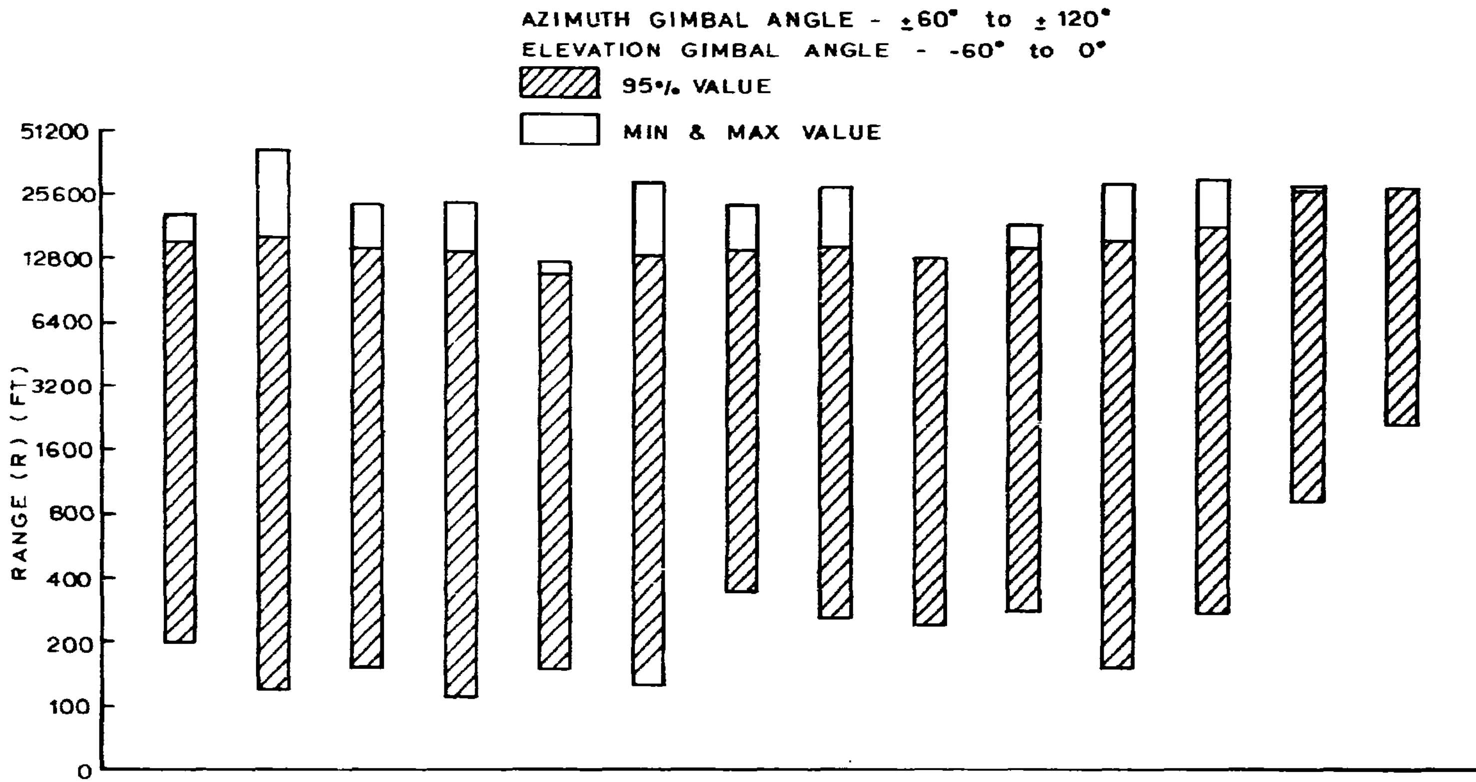
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-43 - SUMMARY OF RANGE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-44 - SUMMARY OF RANGE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-45 - SUMMARY OF RANGE

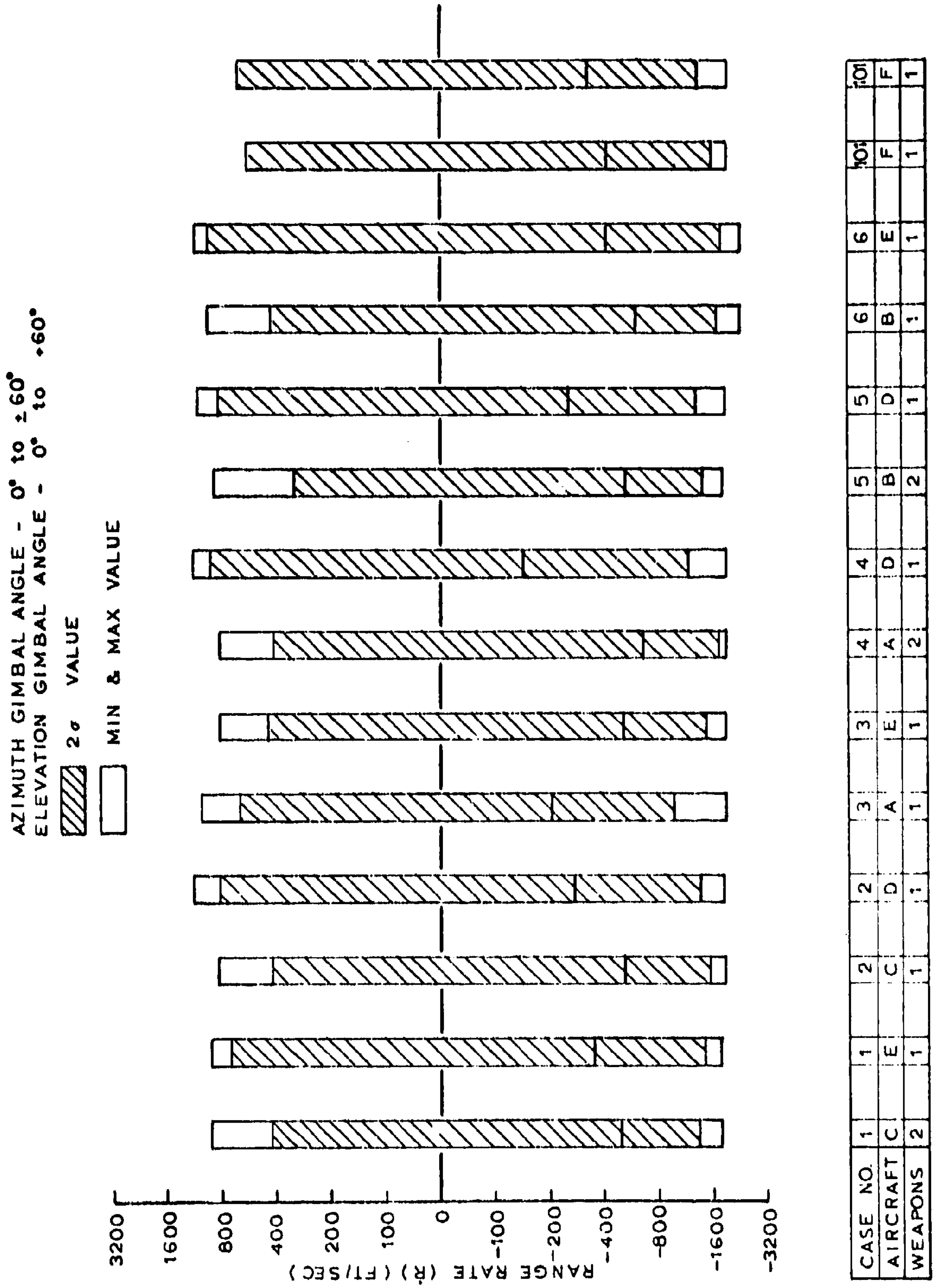


FIG. A-46 - SUMMARY OF RANGE RATE

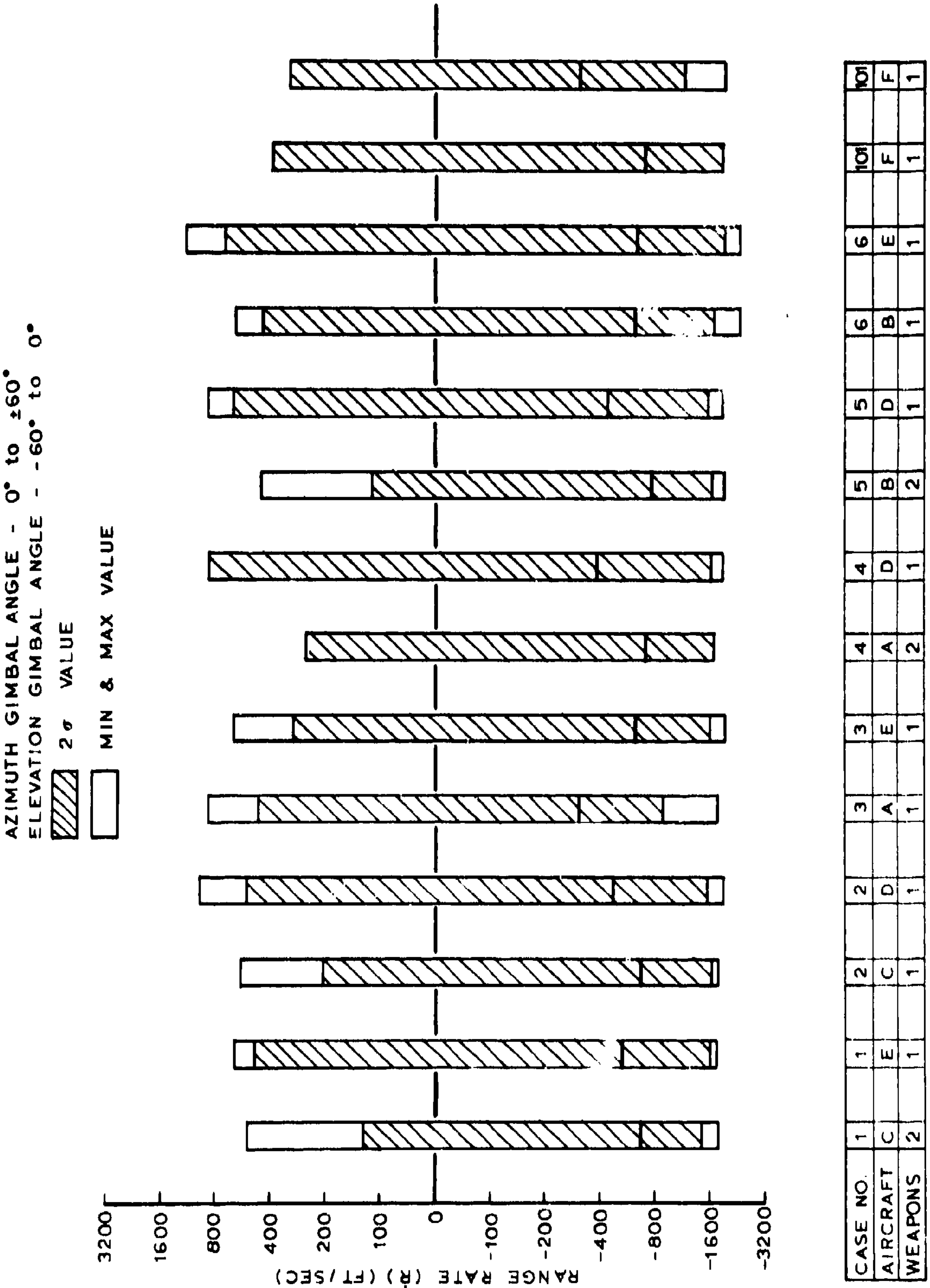
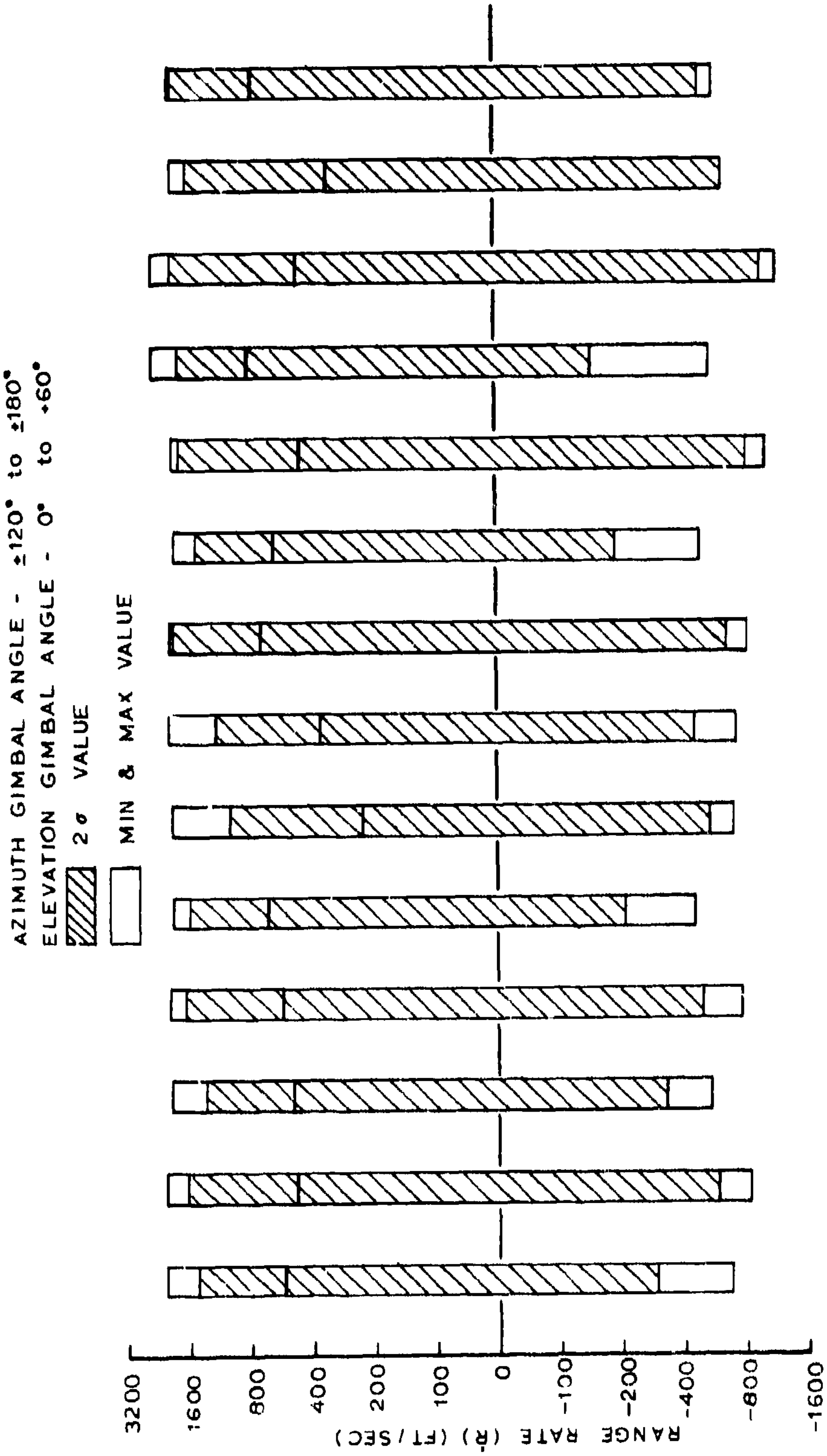
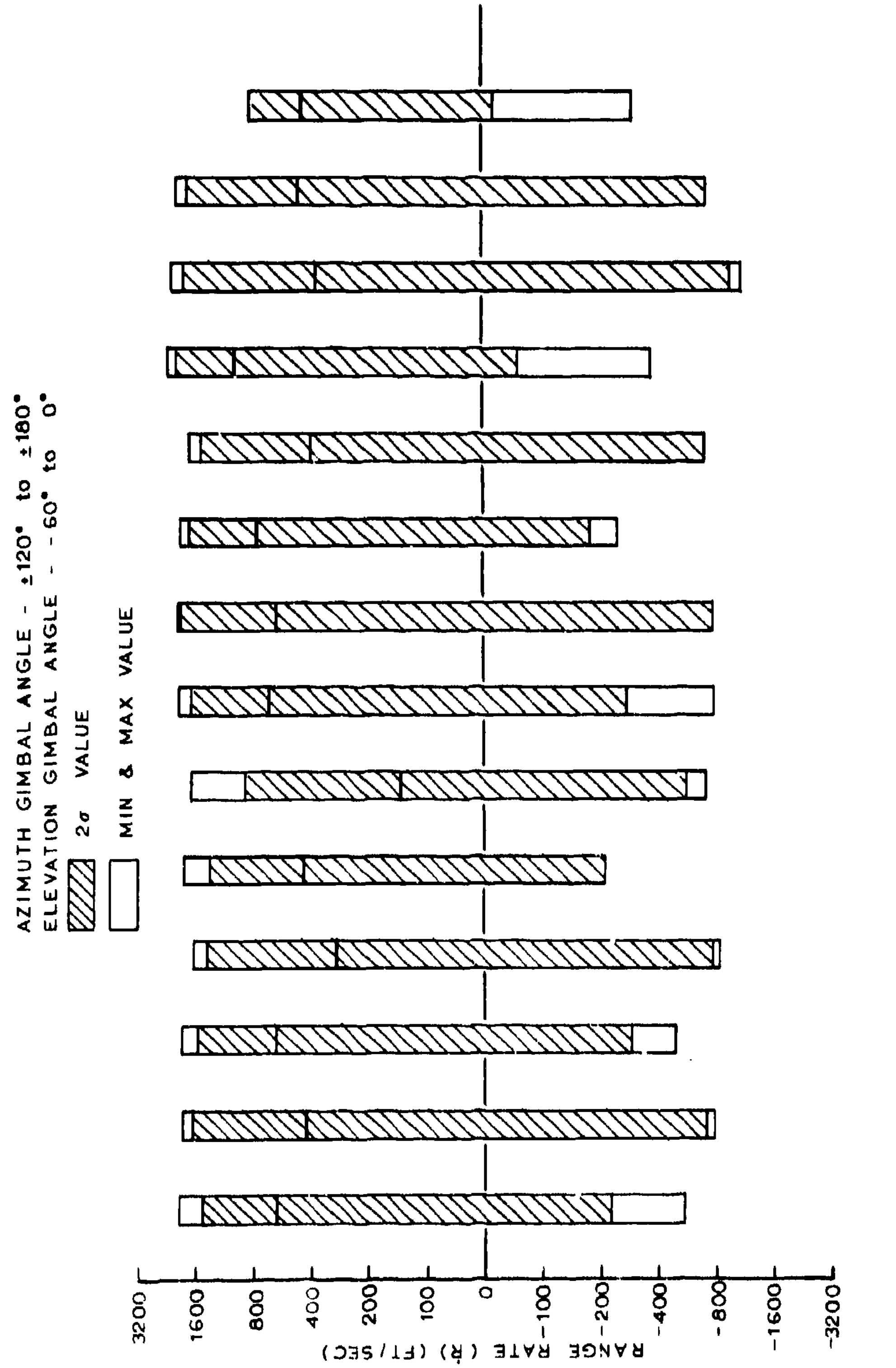


FIG. A-47 - SUMMARY OF RANGE RATE



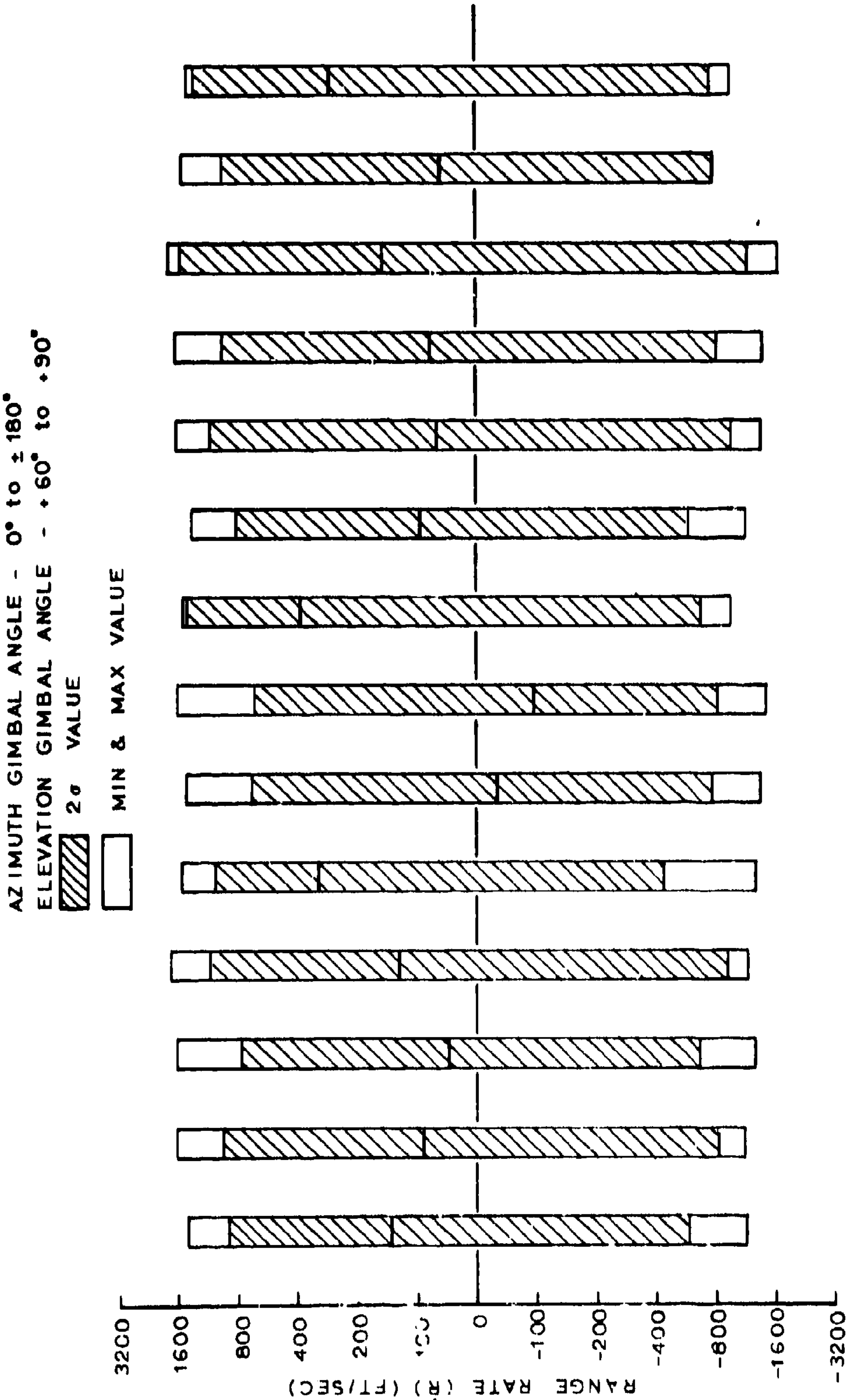
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-48 - SUMMARY OF RANGE RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-49 - SUMMARY OF RANGE RATE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-50 - SUMMARY OF RANGE RATE

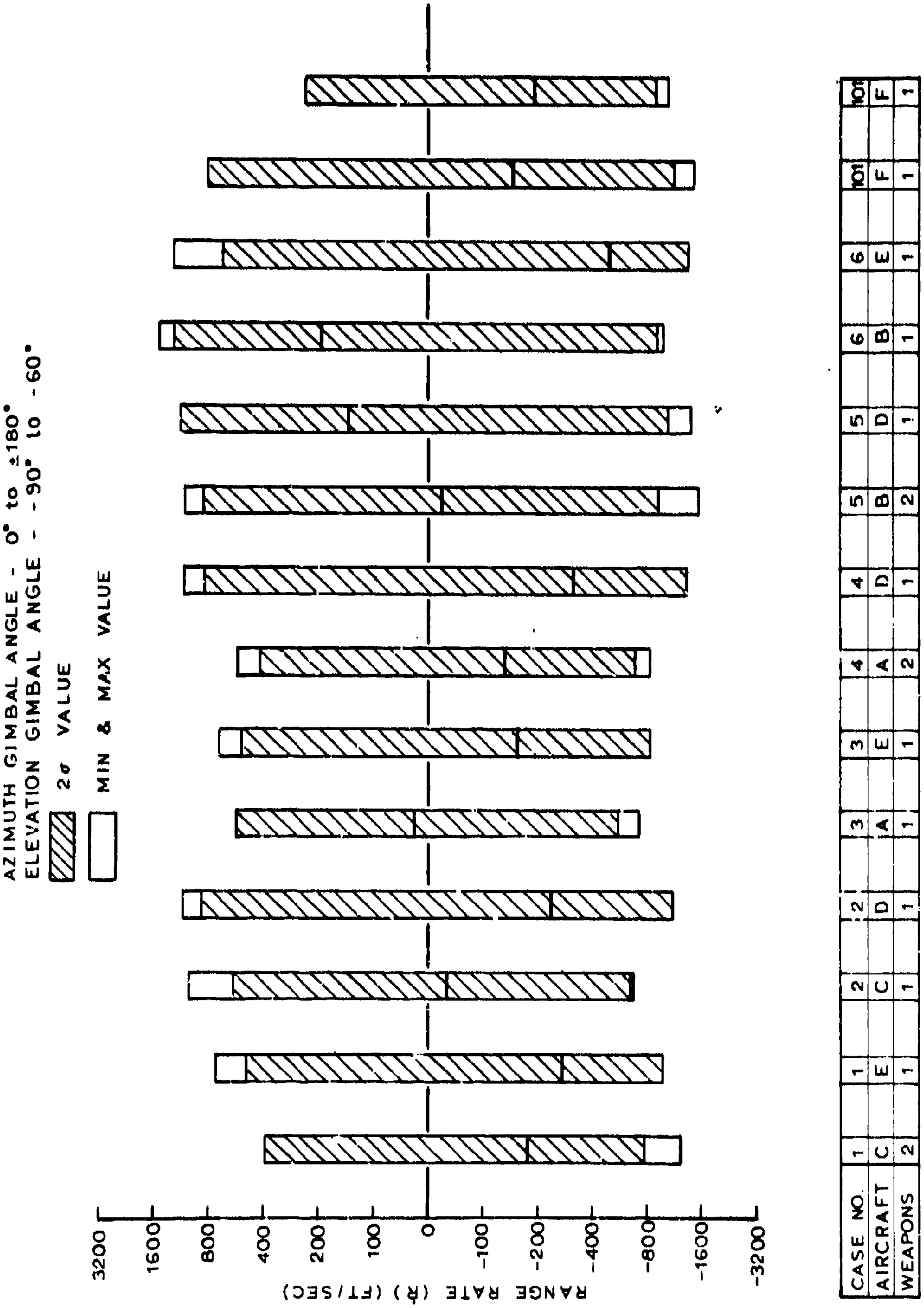


FIG. A-51 - SUMMARY OF RANGE RATE

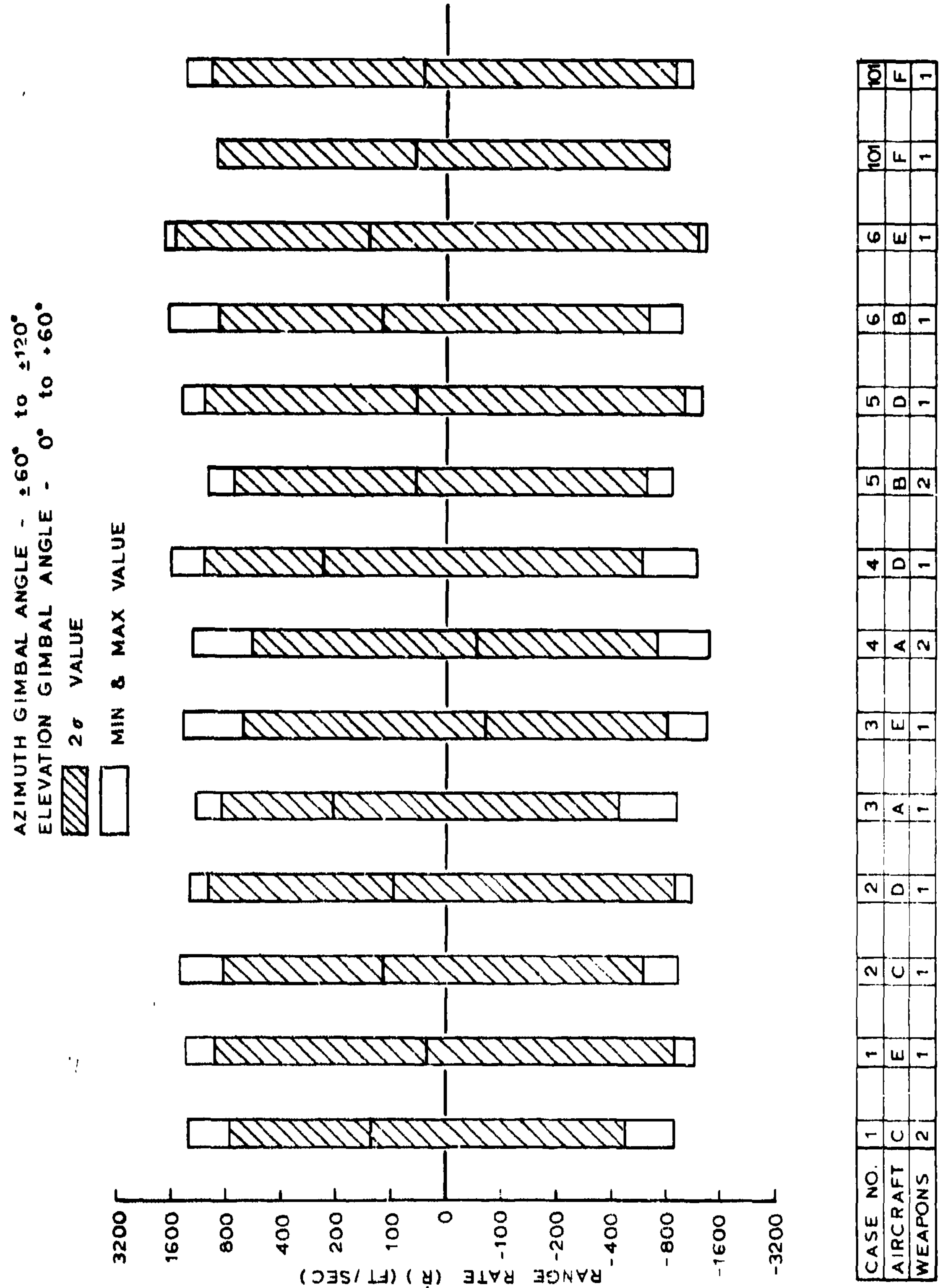
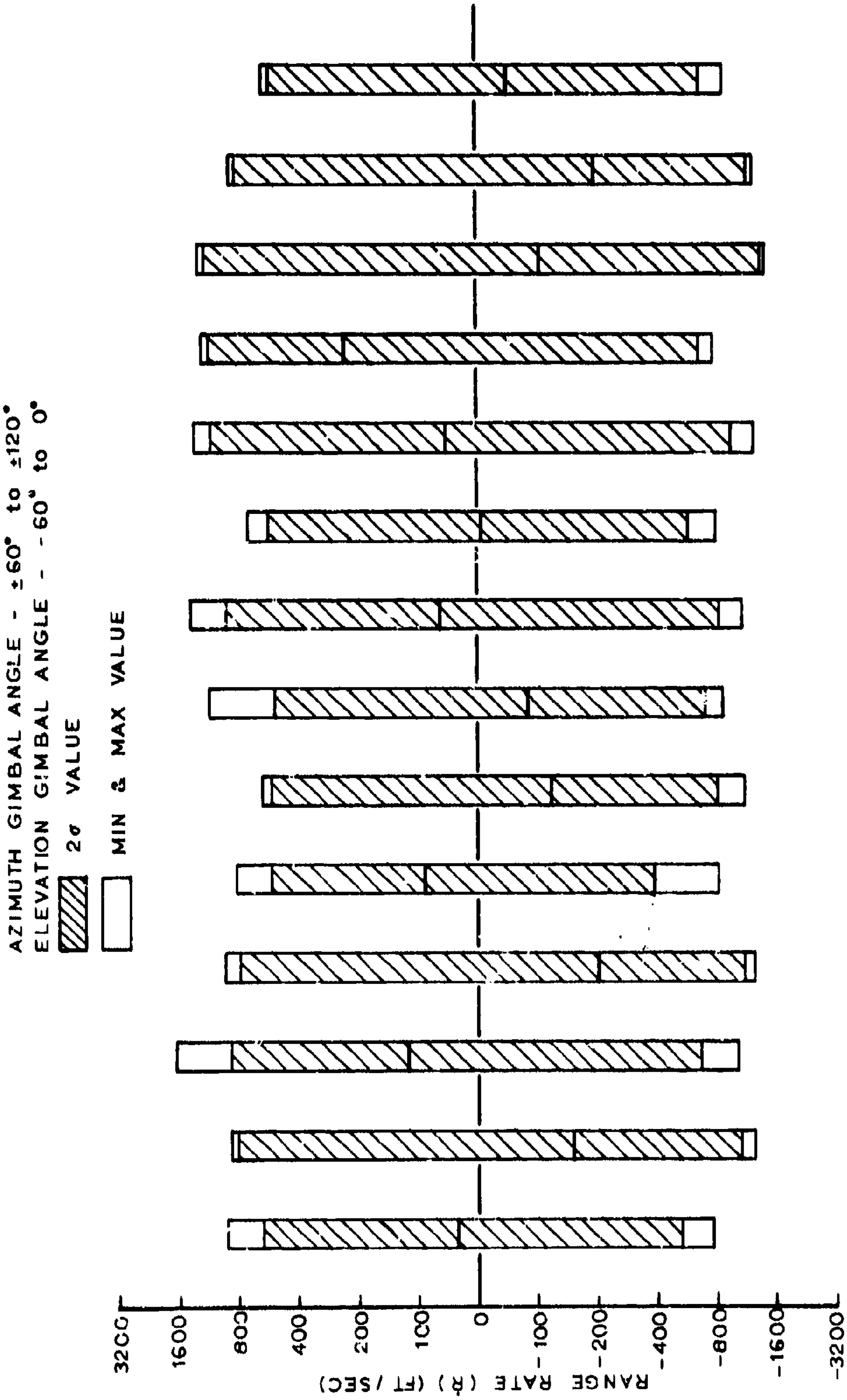
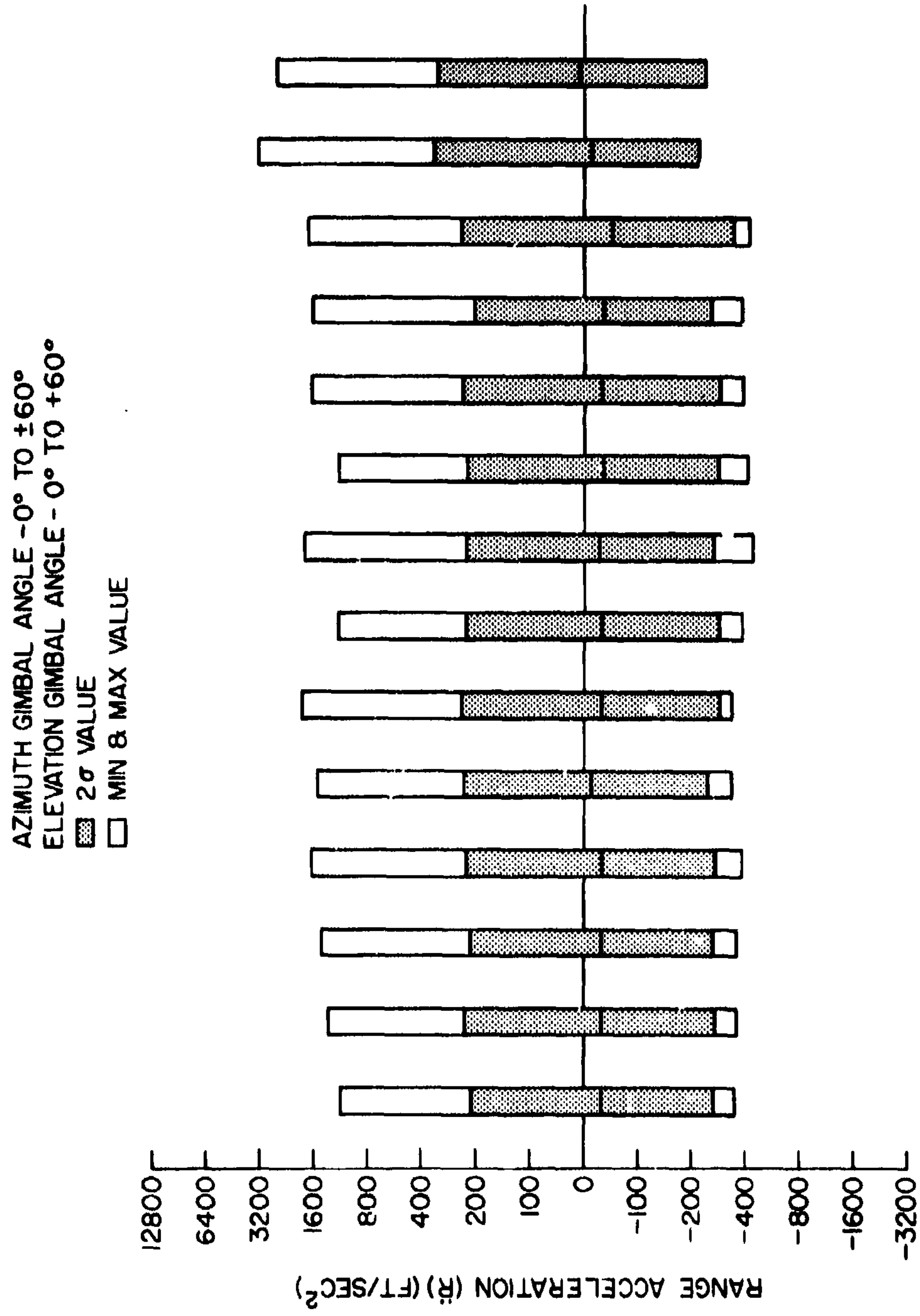


FIG A-52 - SUMMARY OF RANGE RATE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-53 - SUMMARY OF RANGE RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-54–SUMMARY OF RANGE ACCELERATION

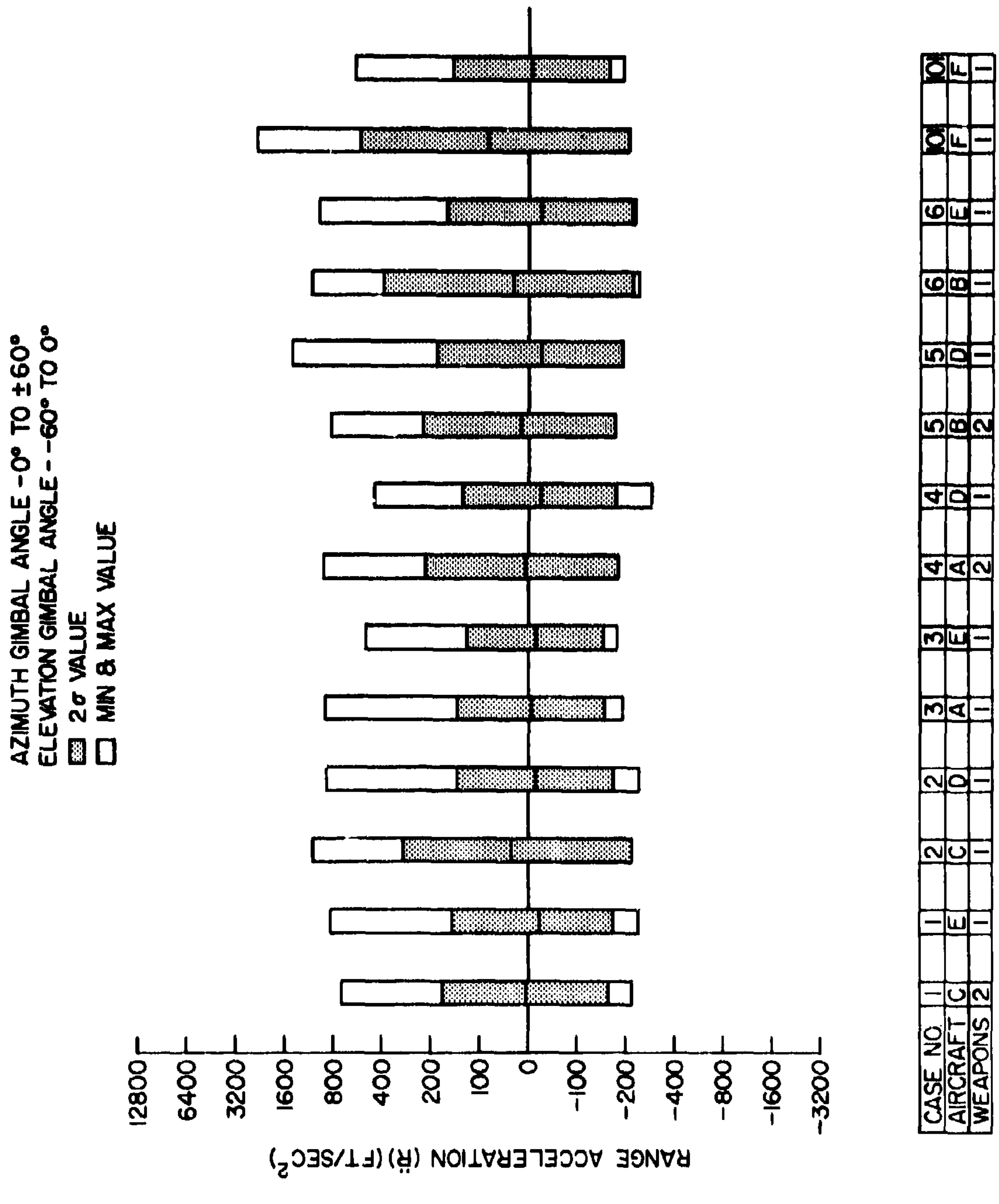


FIG. A-55–SUMMARY OF RANGE ACCELERATION

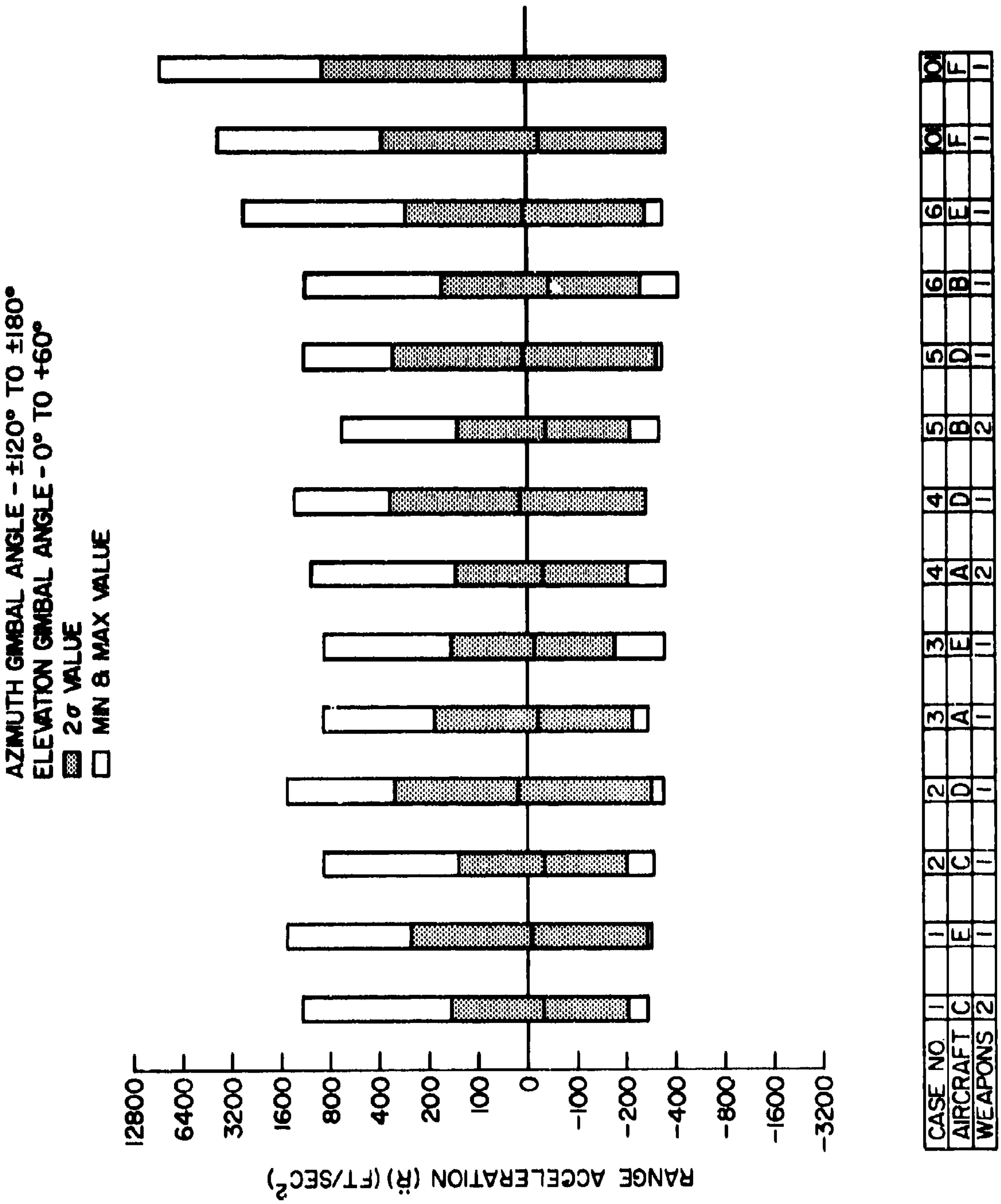
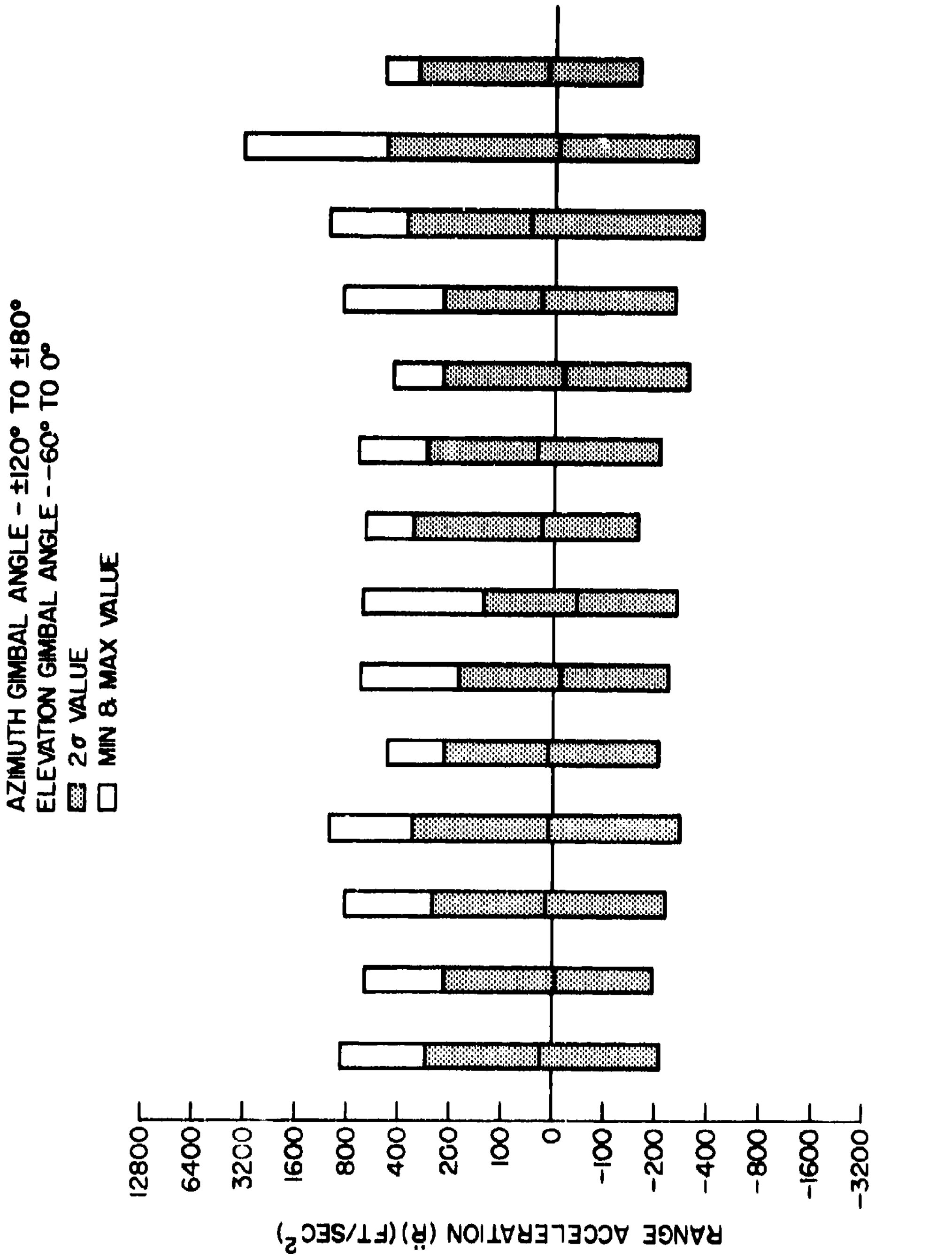
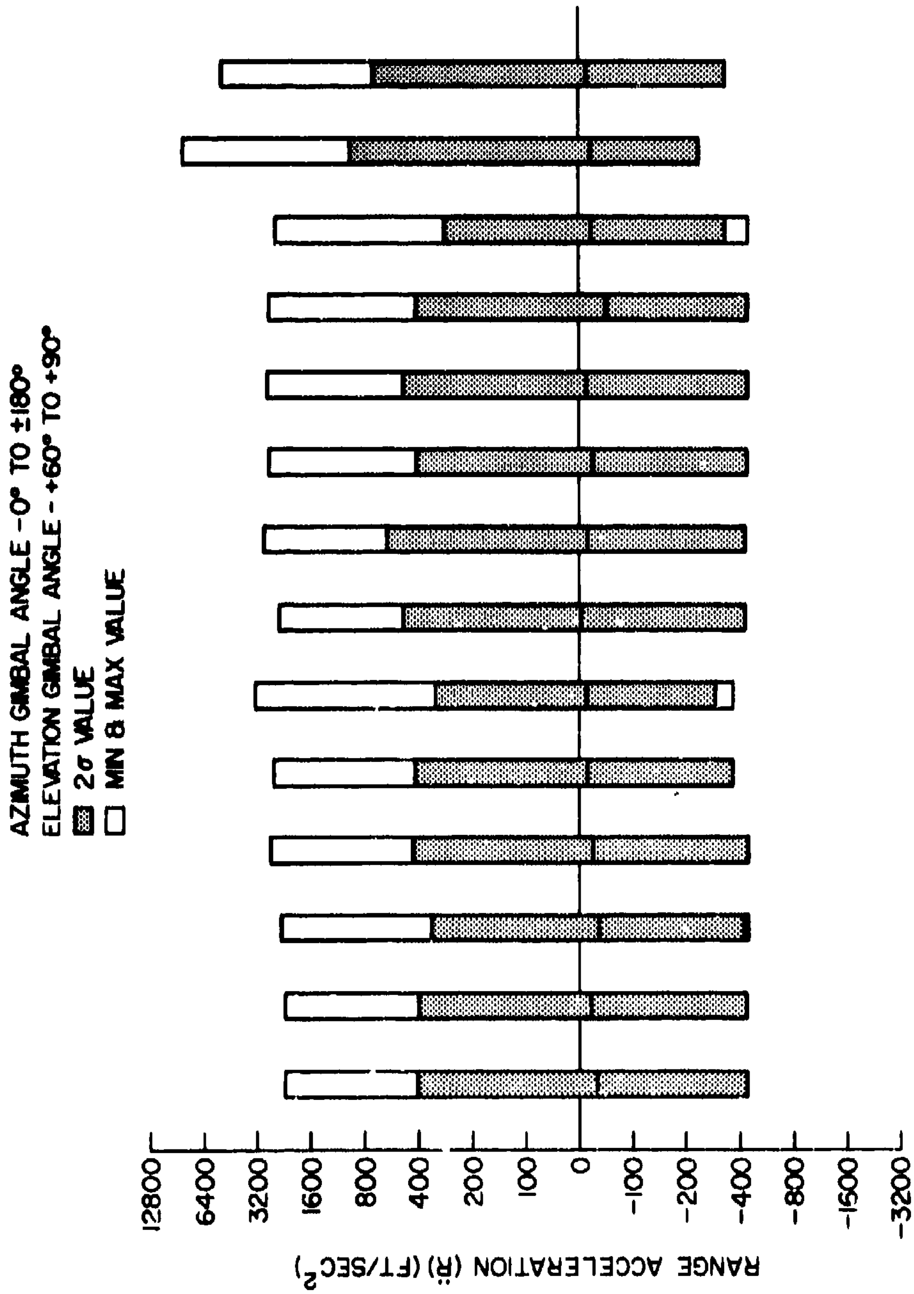


FIG. A-56–SUMMARY OF RANGE ACCELERATION



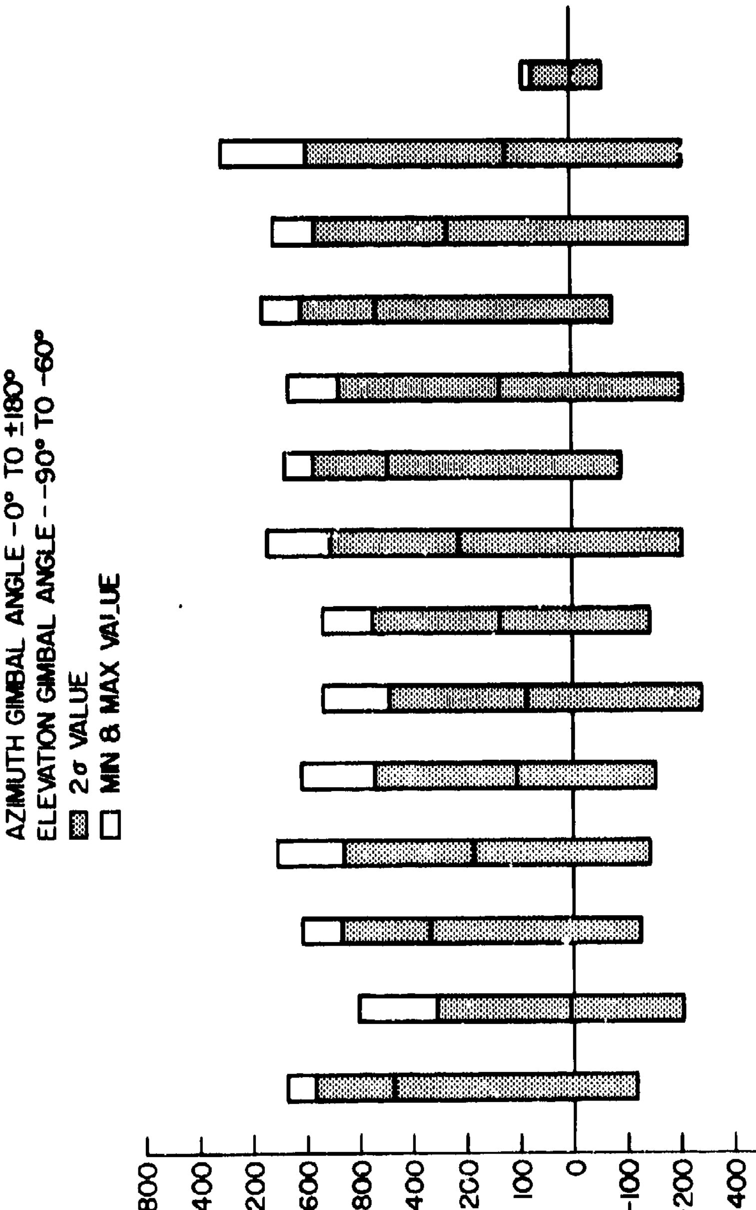
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-57 -SUMMARY OF RANGE ACCELERATION



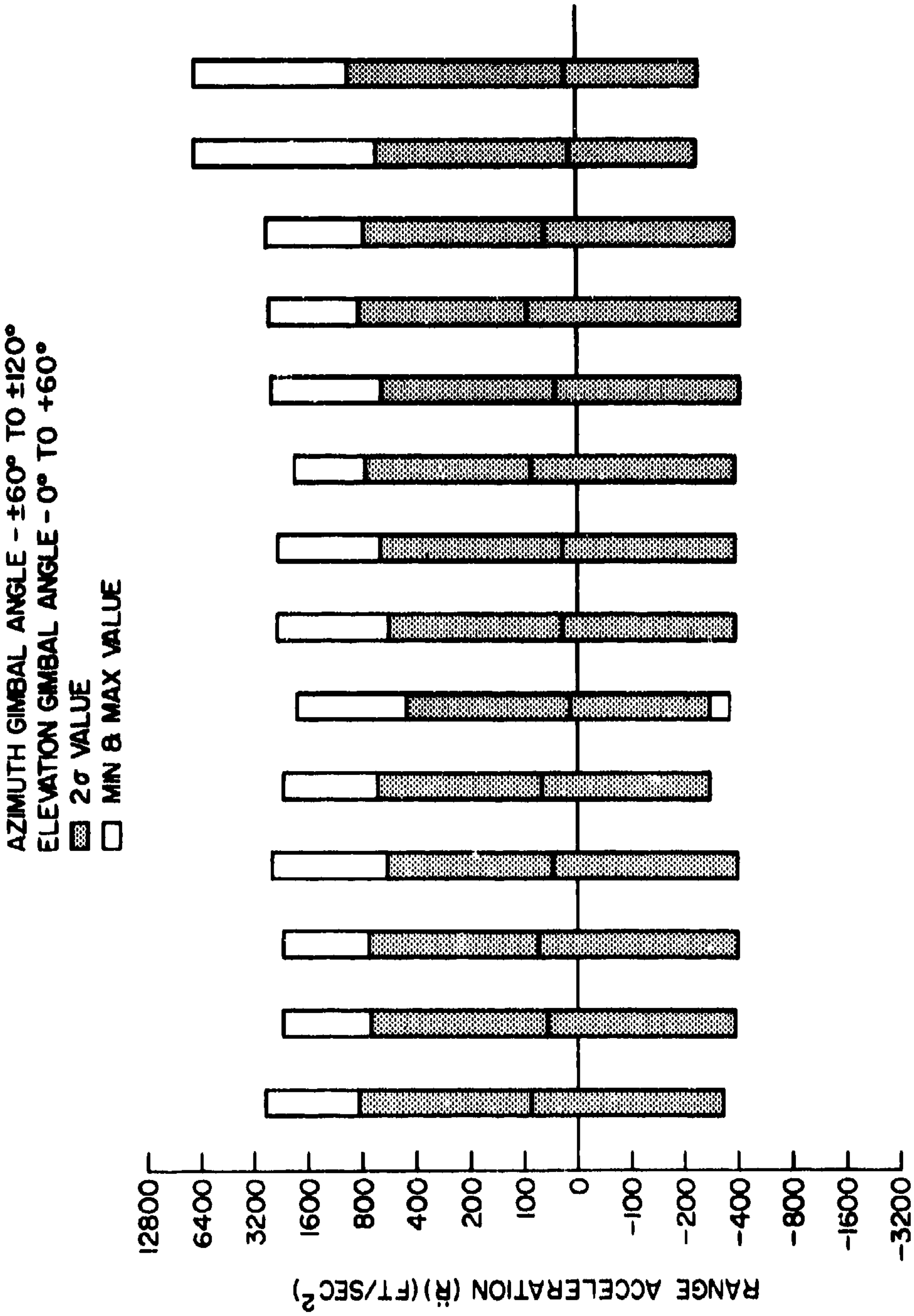
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-58-SUMMARY OF RANGE ACCELERATION



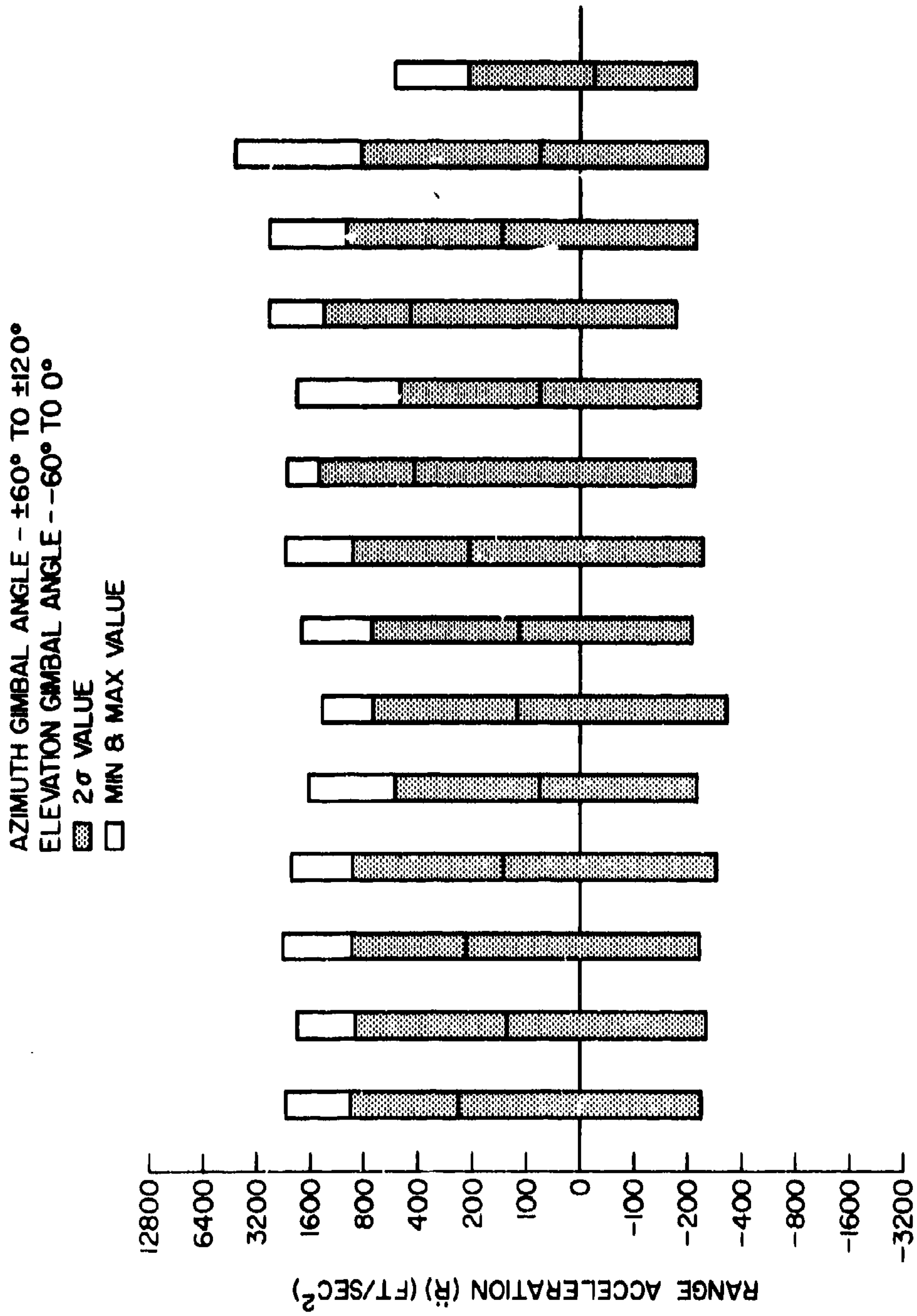
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-59-SUMMARY OF RANGE ACCELERATION



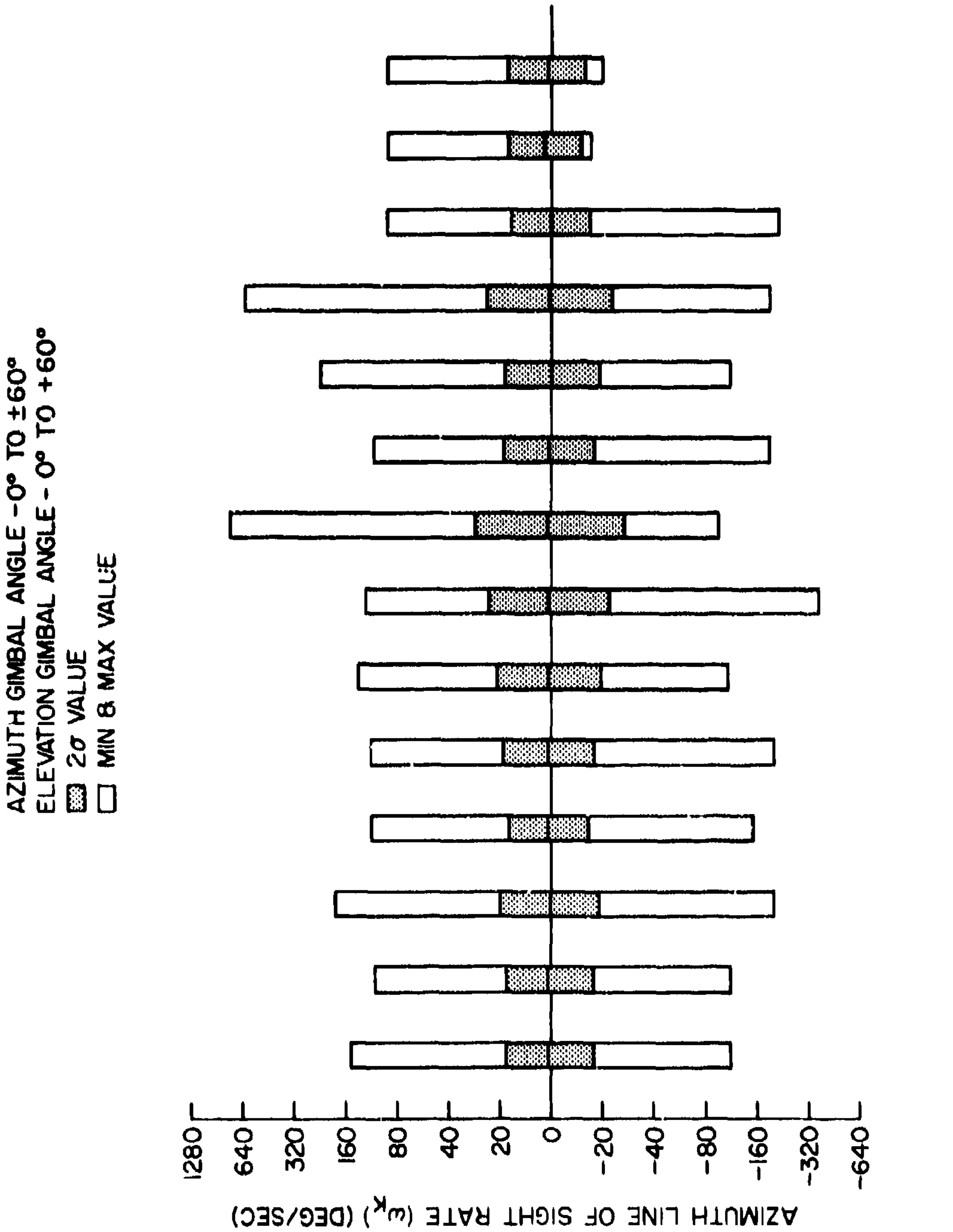
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	102
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-60–SUMMARY OF RANGE ACCELERATION



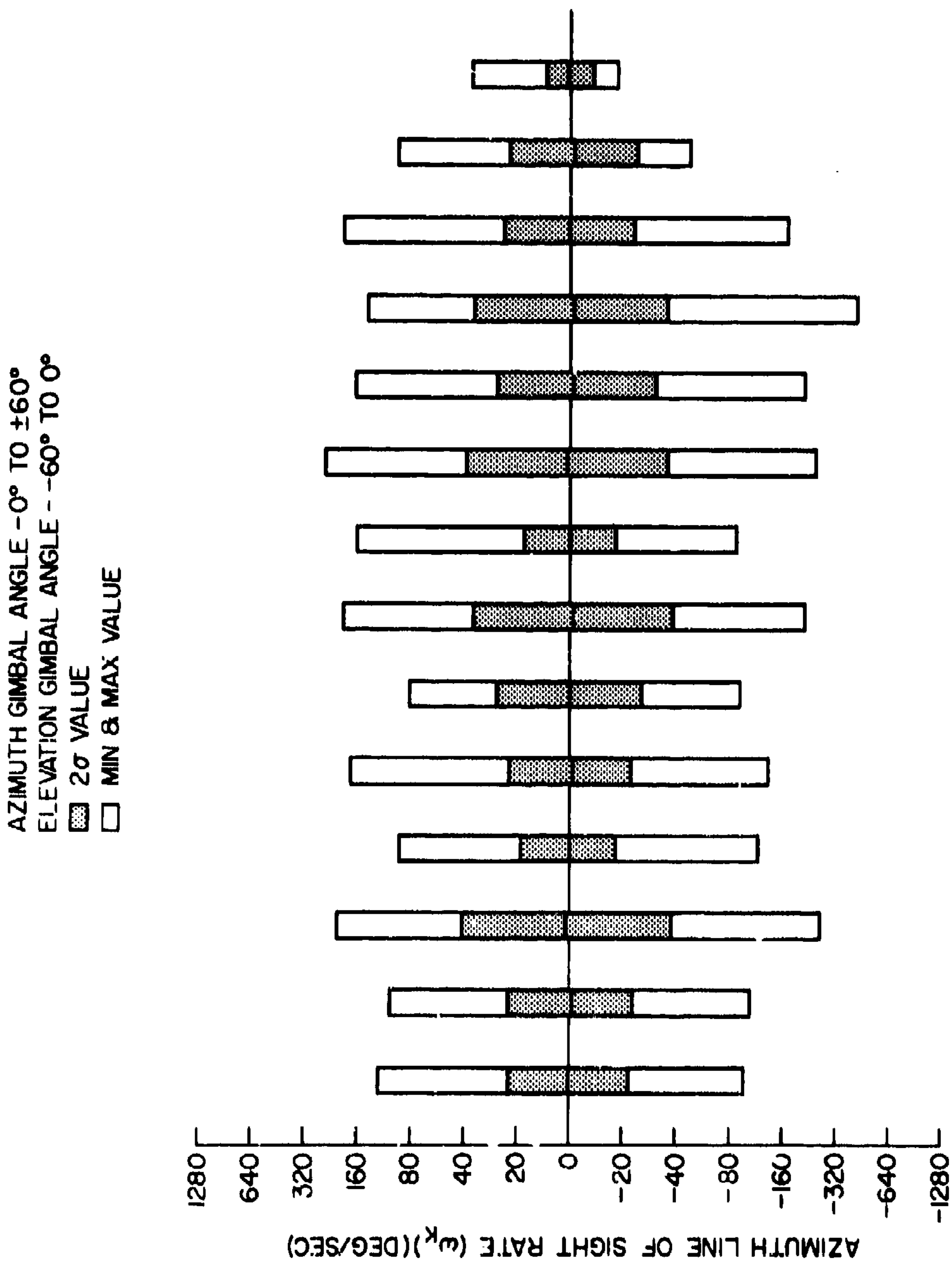
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-61-SUMMARY OF RANGE ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-62—SUMMARY OF AZIMUTH LINE OF SIGHT RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-63–SUMMARY OF AZIMUTH LINE OF SIGHT RATE

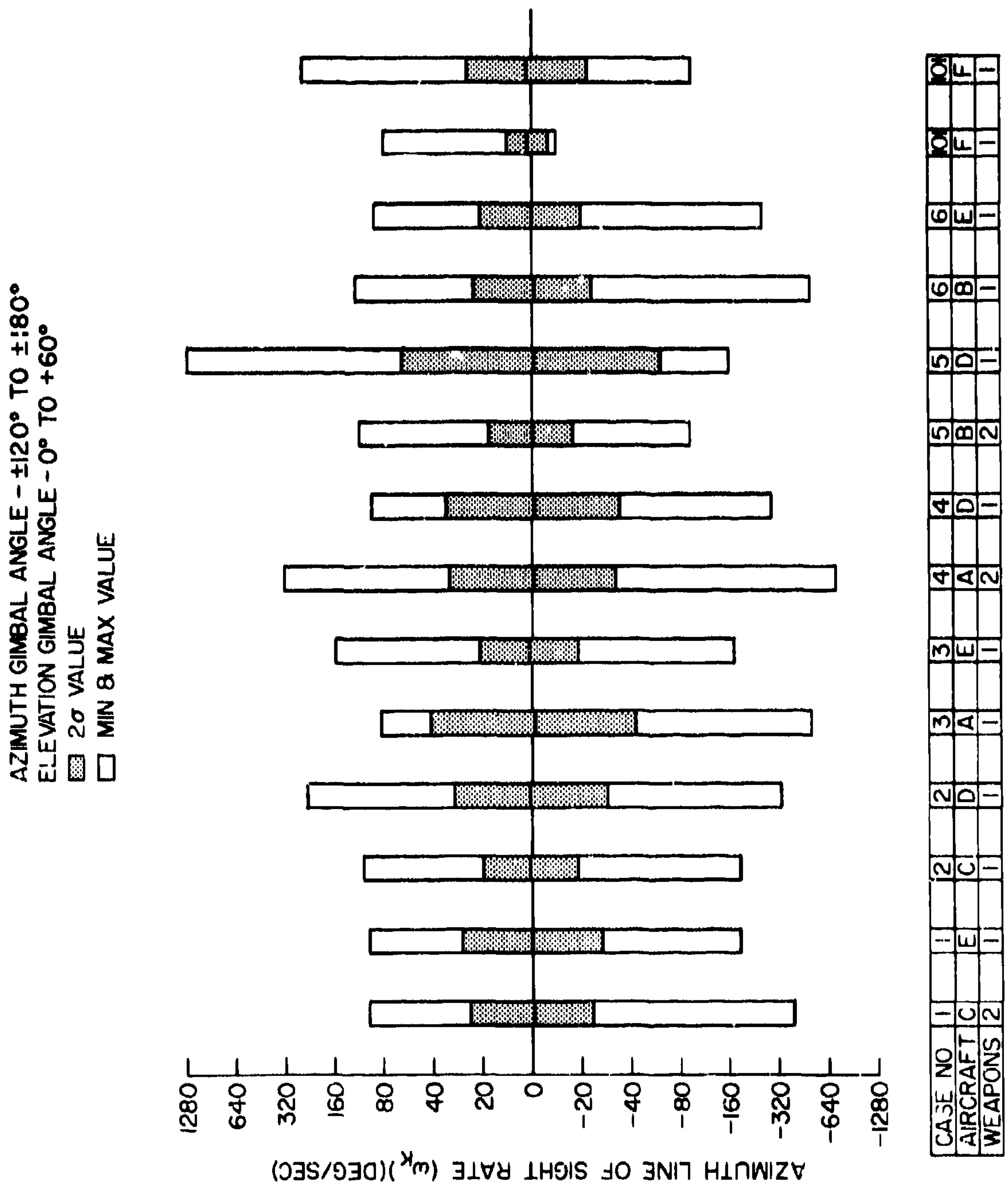


FIG. A-64- SUMMARY OF AZIMUTH LINE OF SIGHT RATE

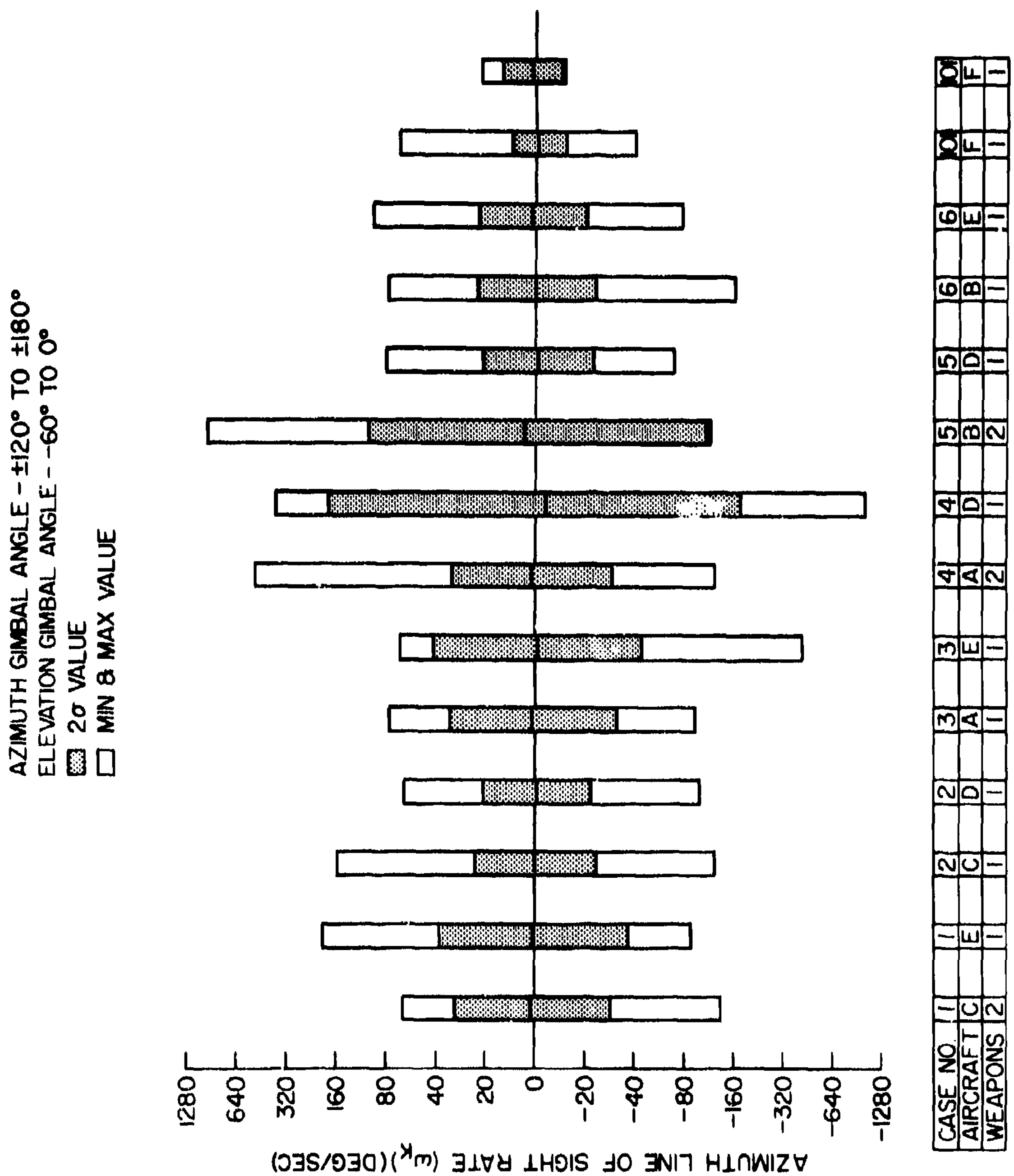
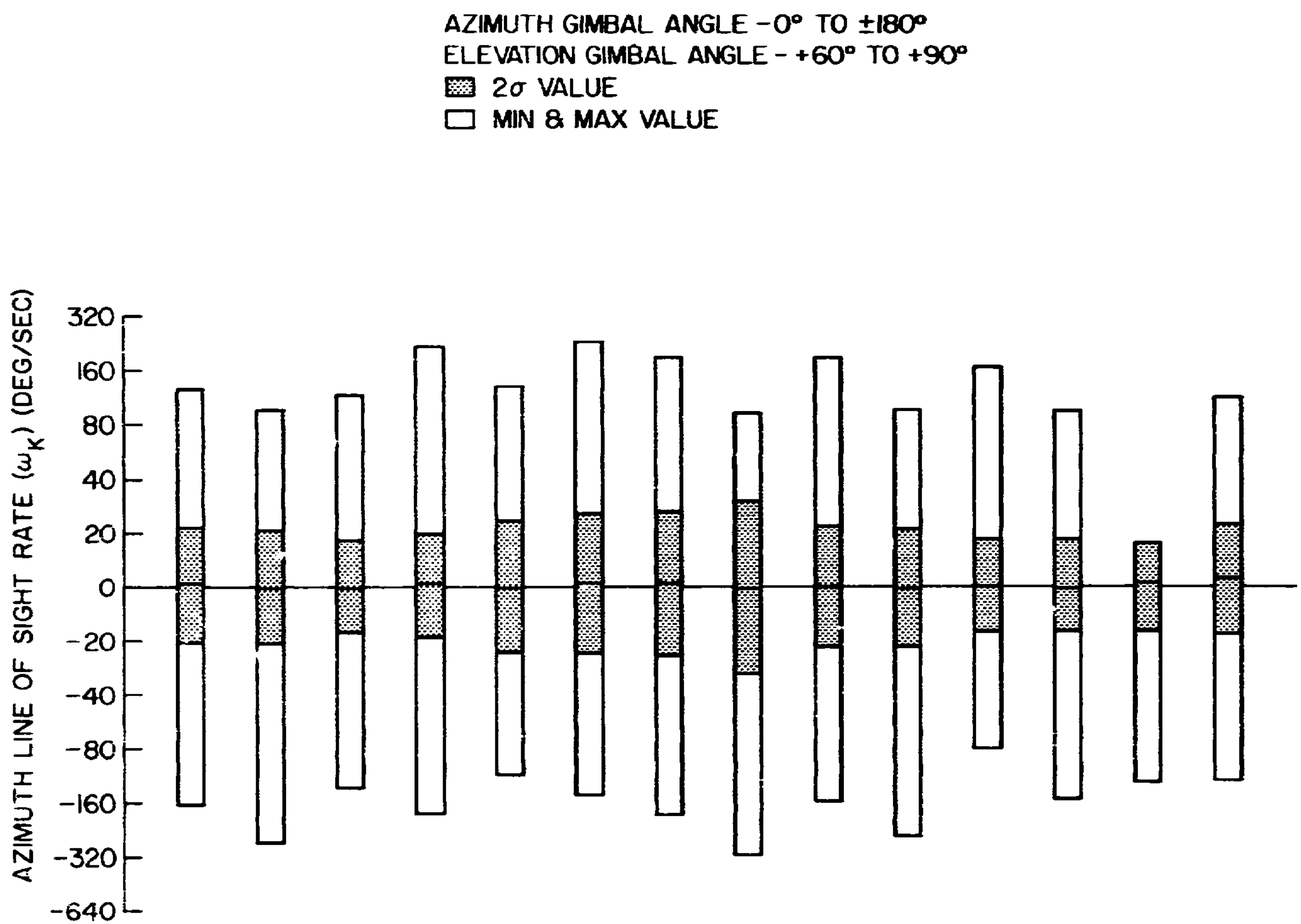
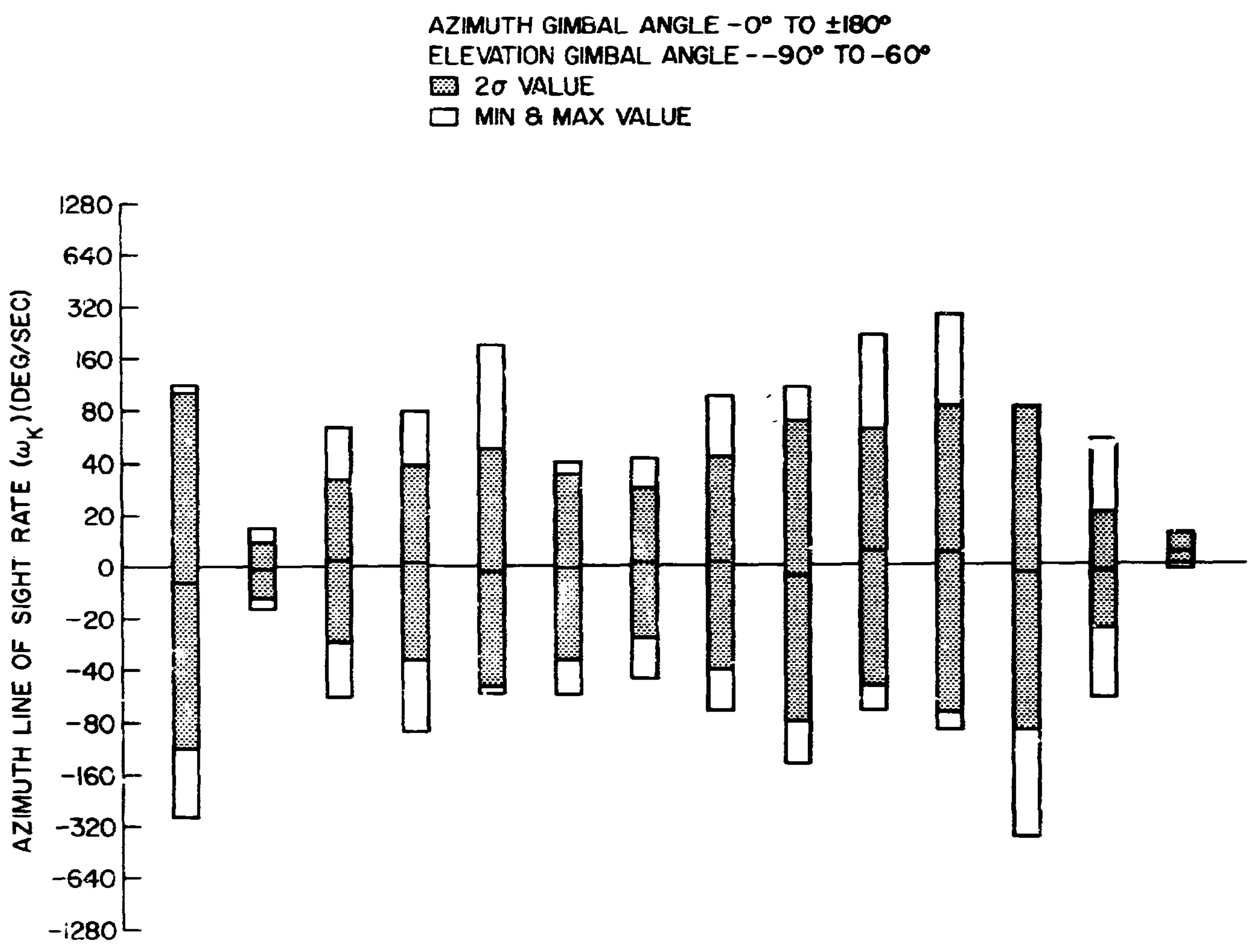


FIG. A-65–SUMMARY OF AZIMUTH LINE OF SIGHT RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-63-SUMMARY OF AZIMUTH LINE OF SIGHT RATE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-67-SUMMARY OF AZIMUTH LINE OF SIGHT RATE

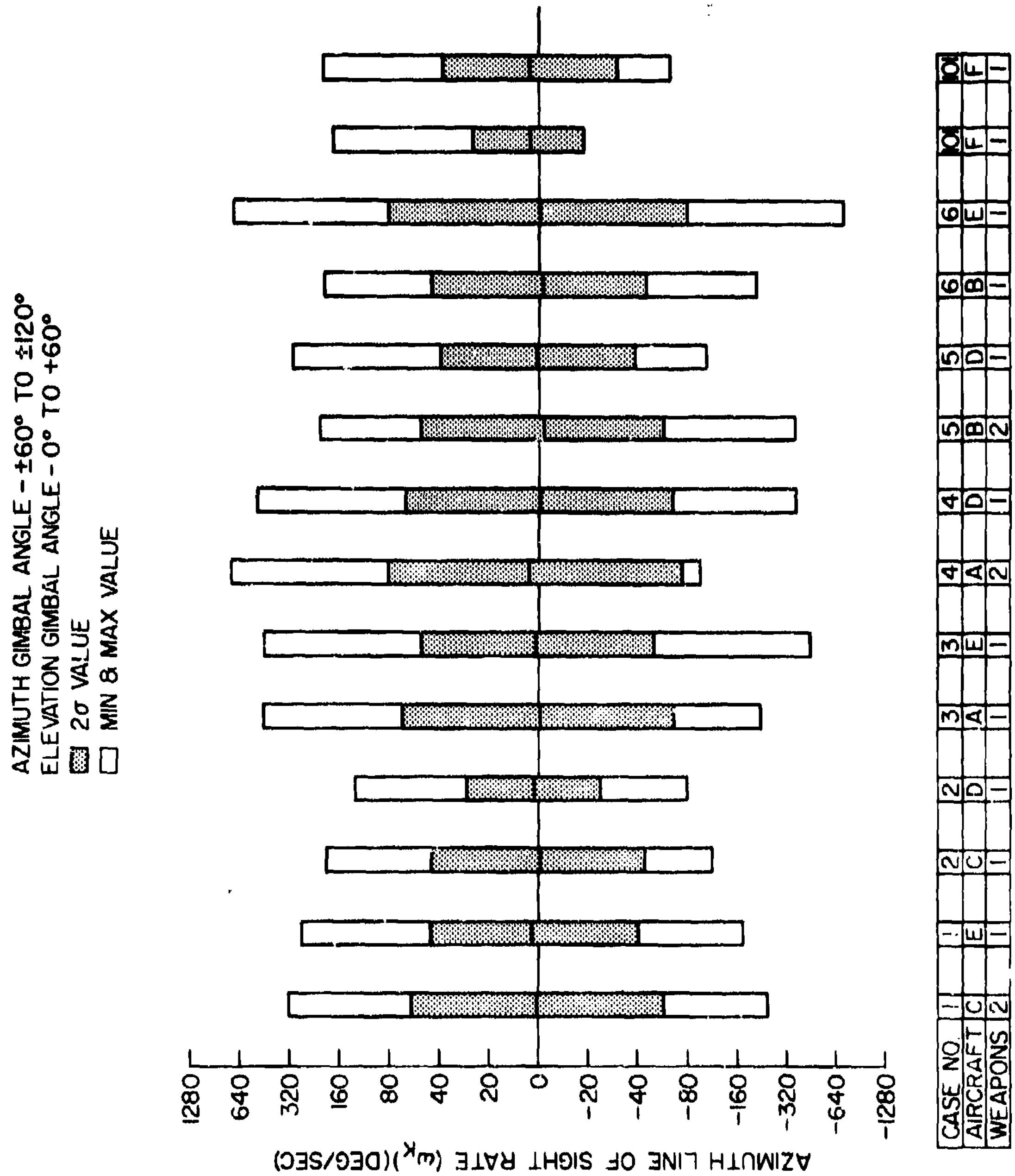


FIG. A-68- SUMMARY OF AZIMUTH LINE OF SIGHT RATE

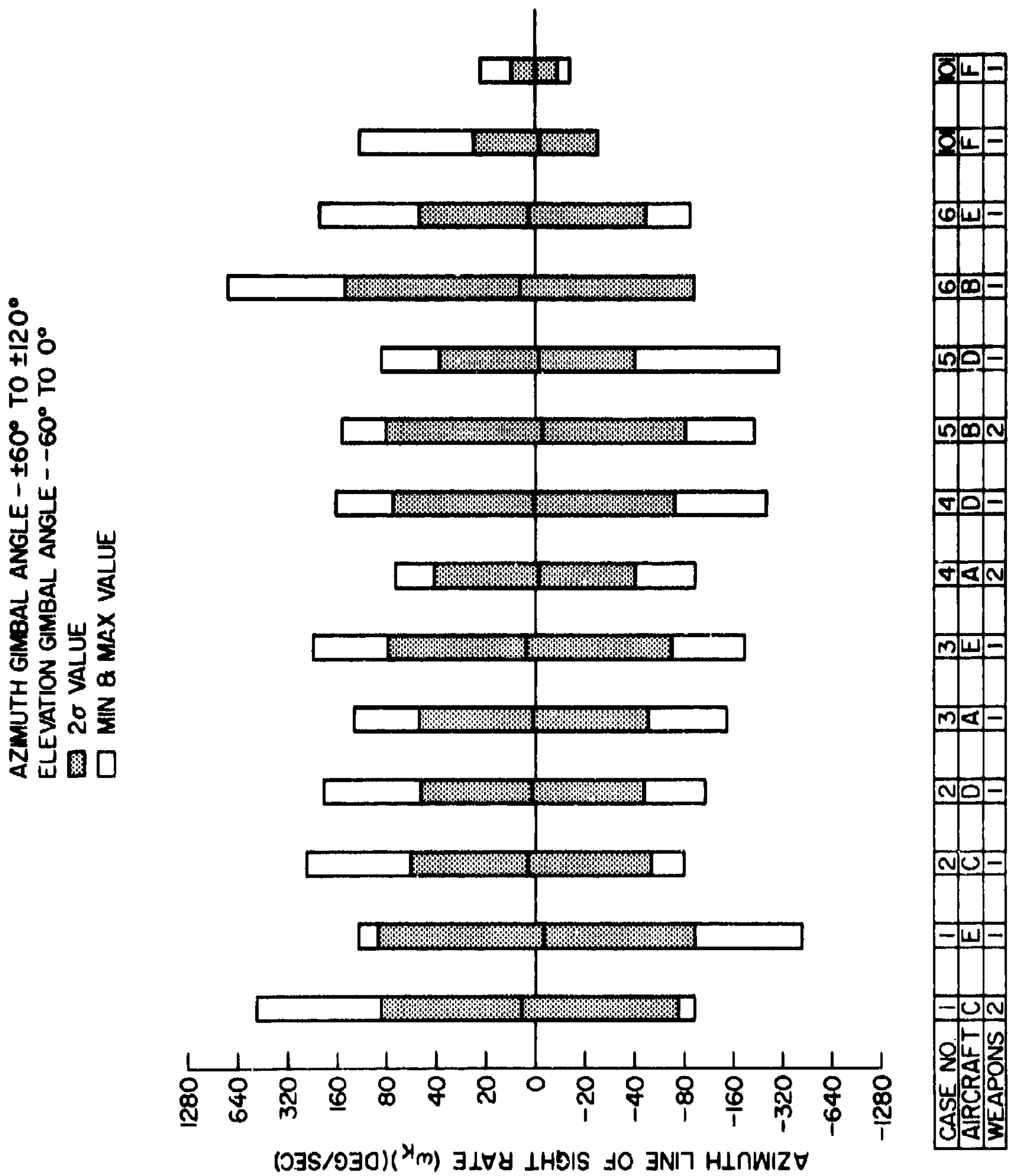
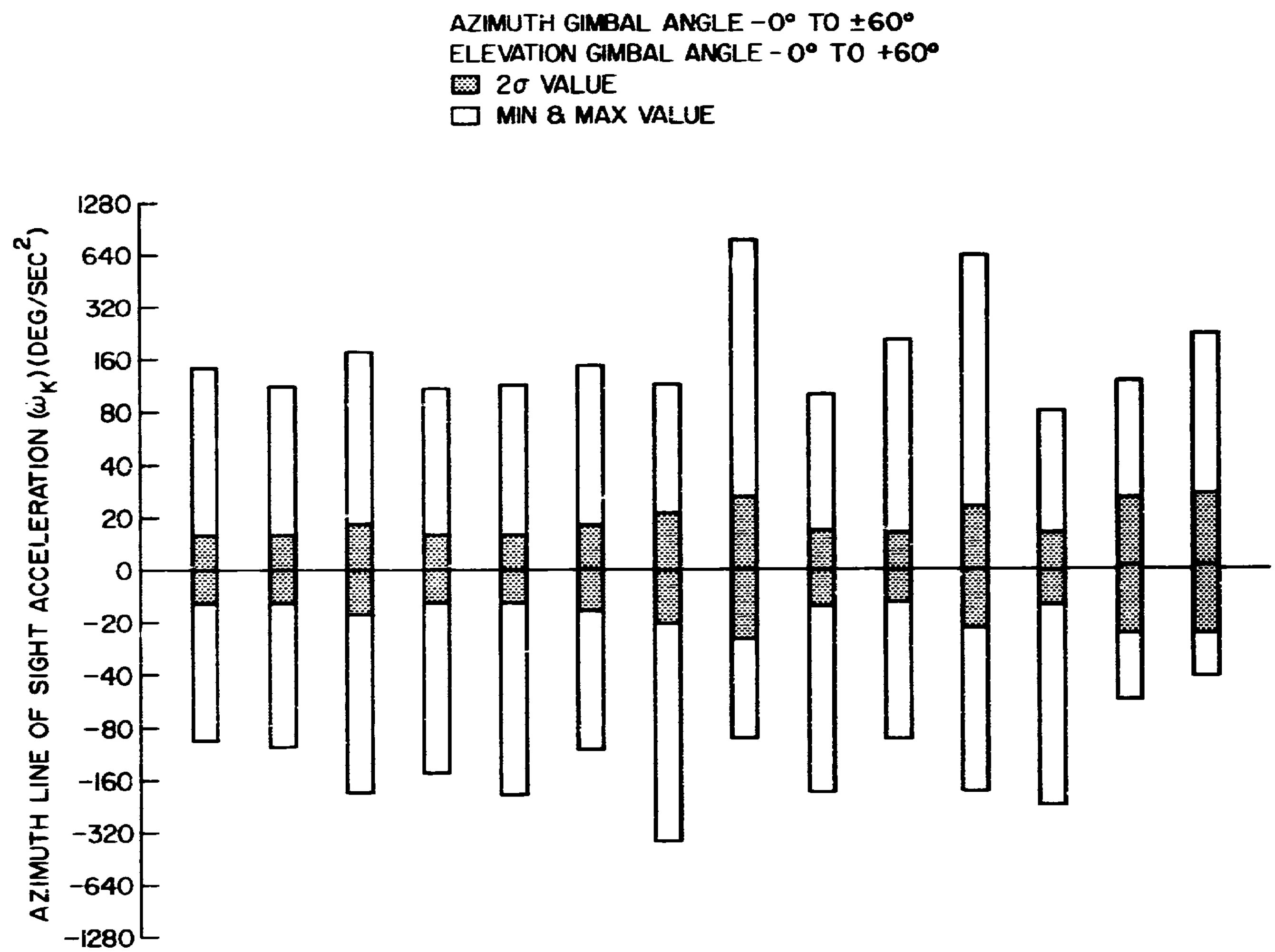


FIG. A-69- SUMMARY OF AZIMUTH LINE OF SIGHT RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-70- SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION

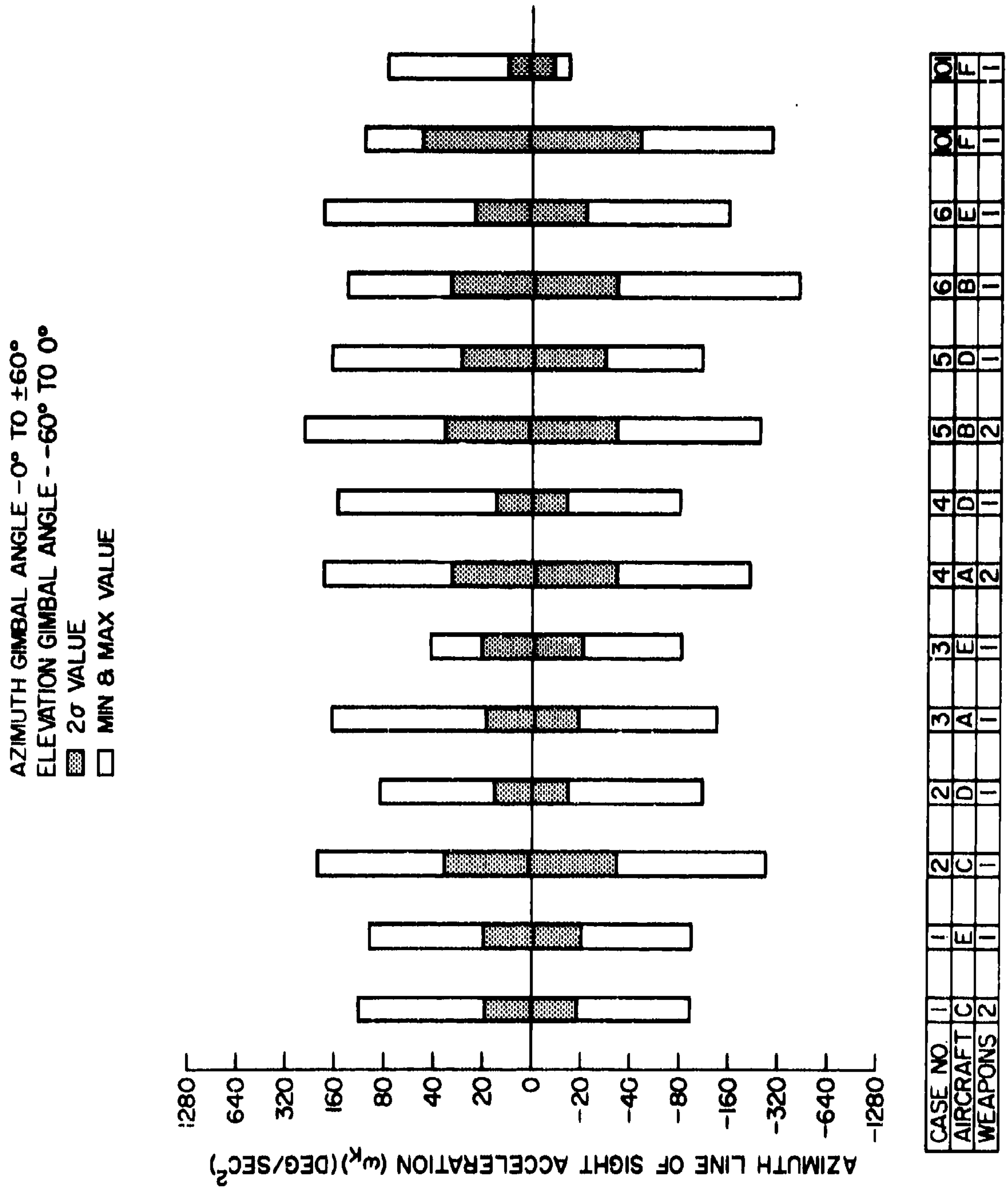


FIG. A-71–SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION

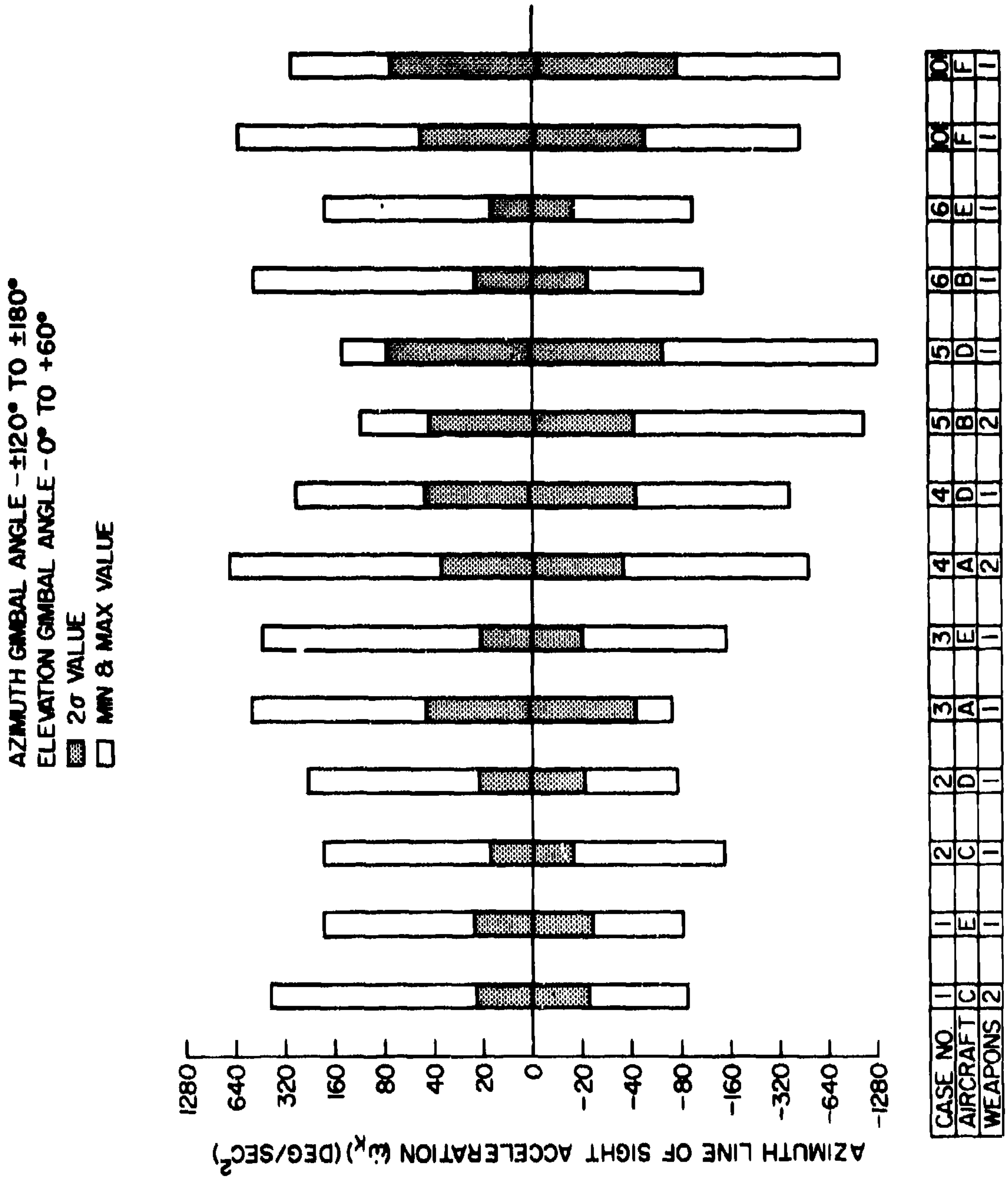
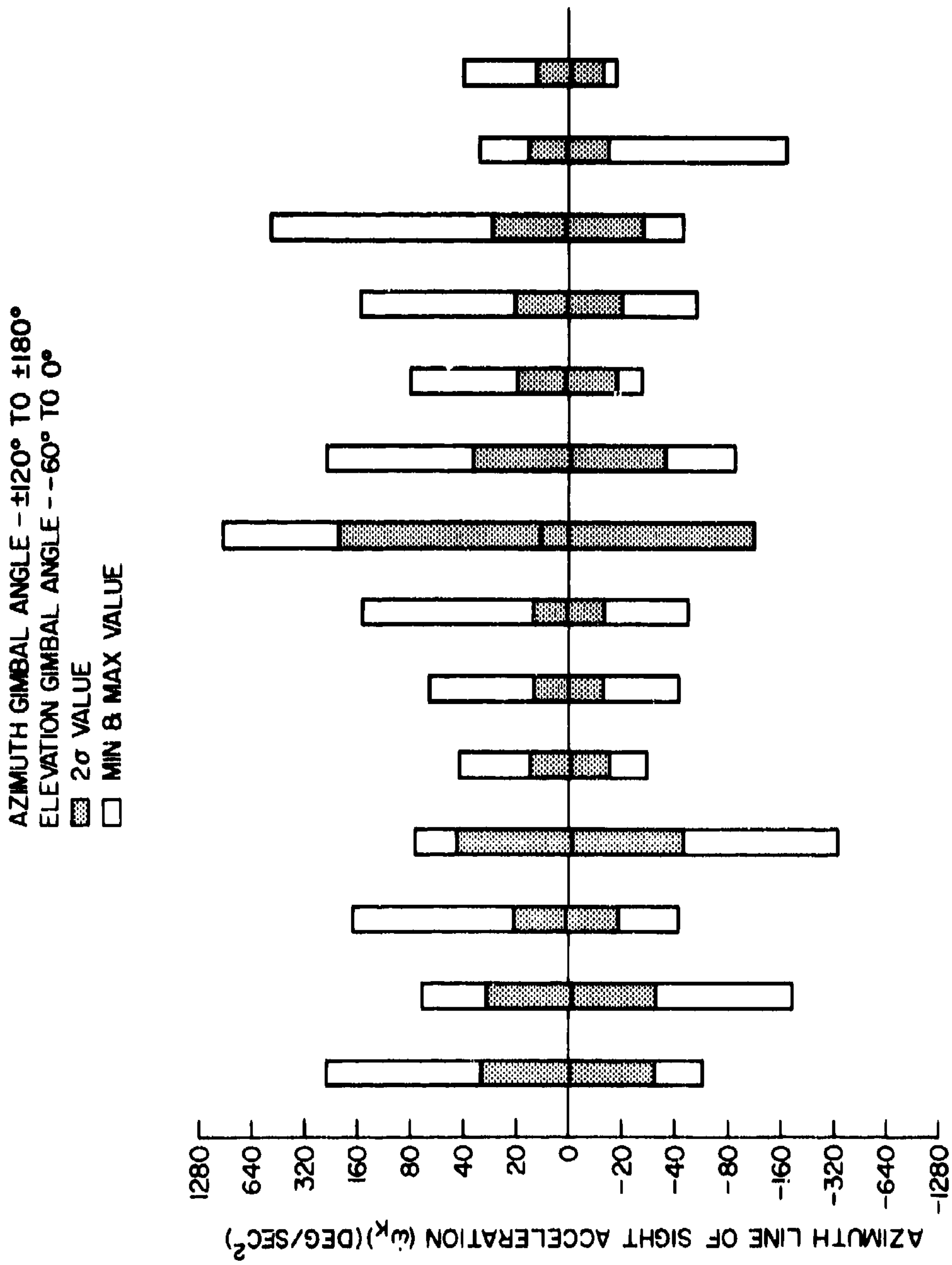


FIG. A-72- SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-73- SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION

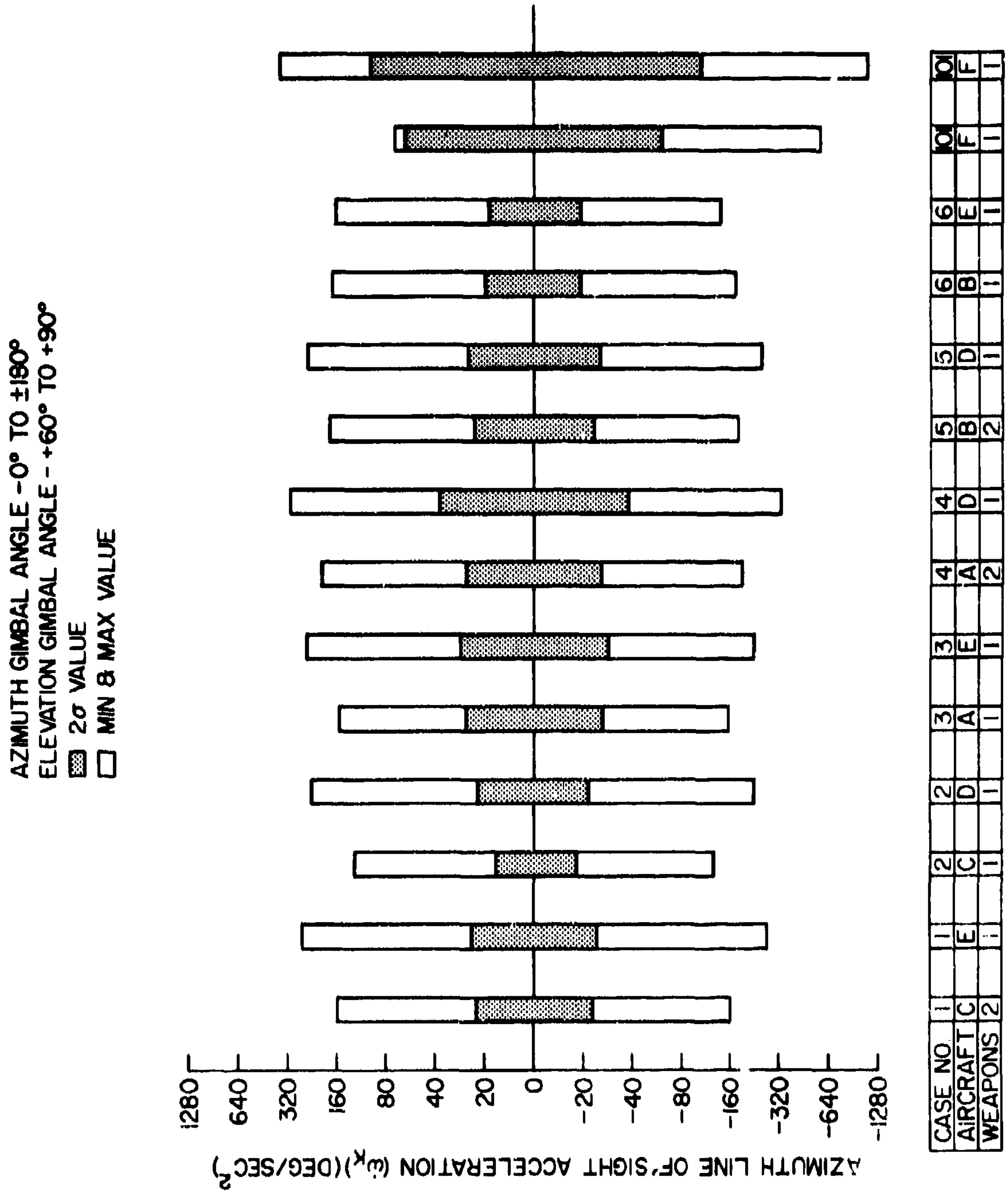
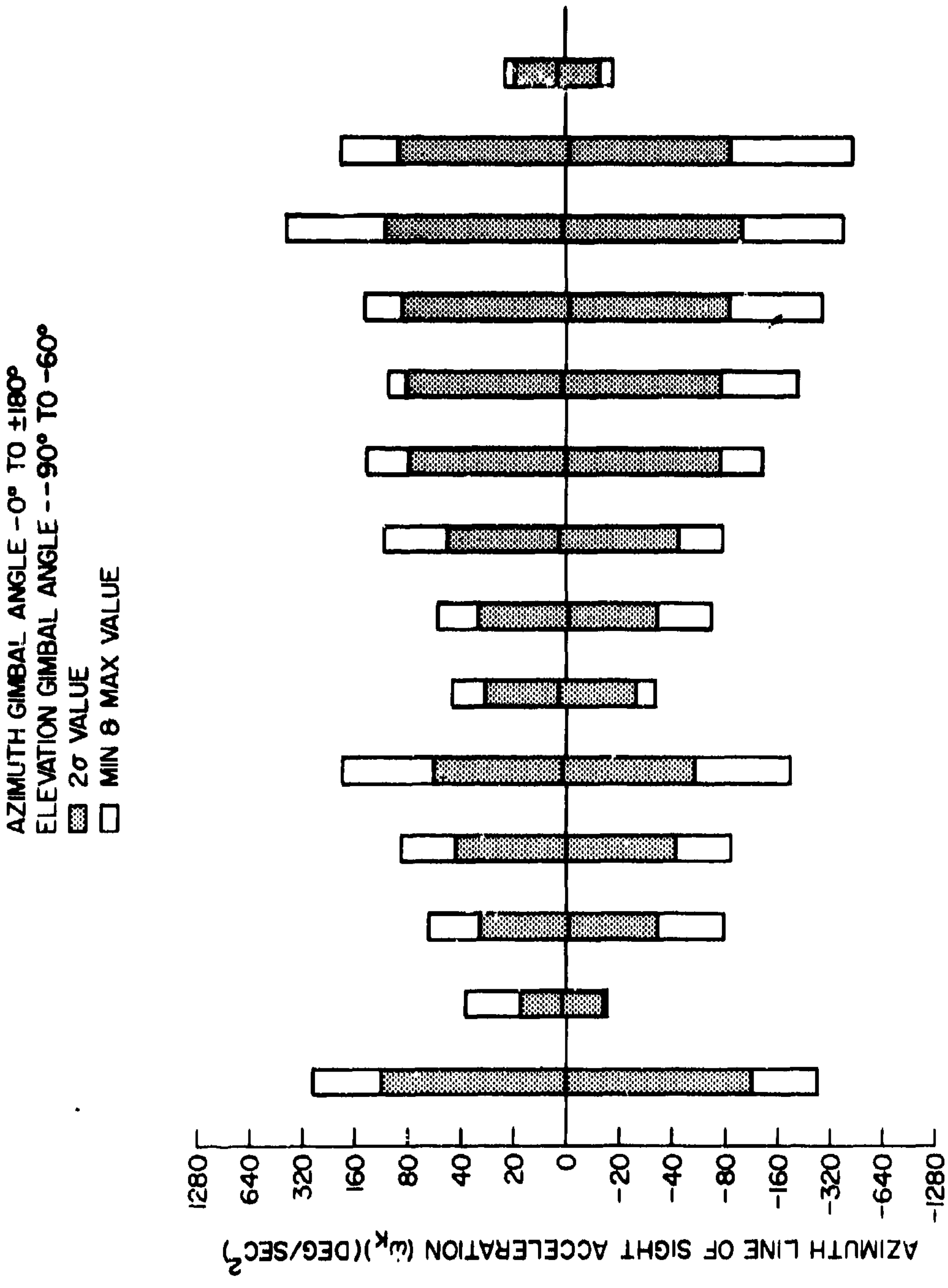


FIG. A-74- SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION

CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-75-SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION

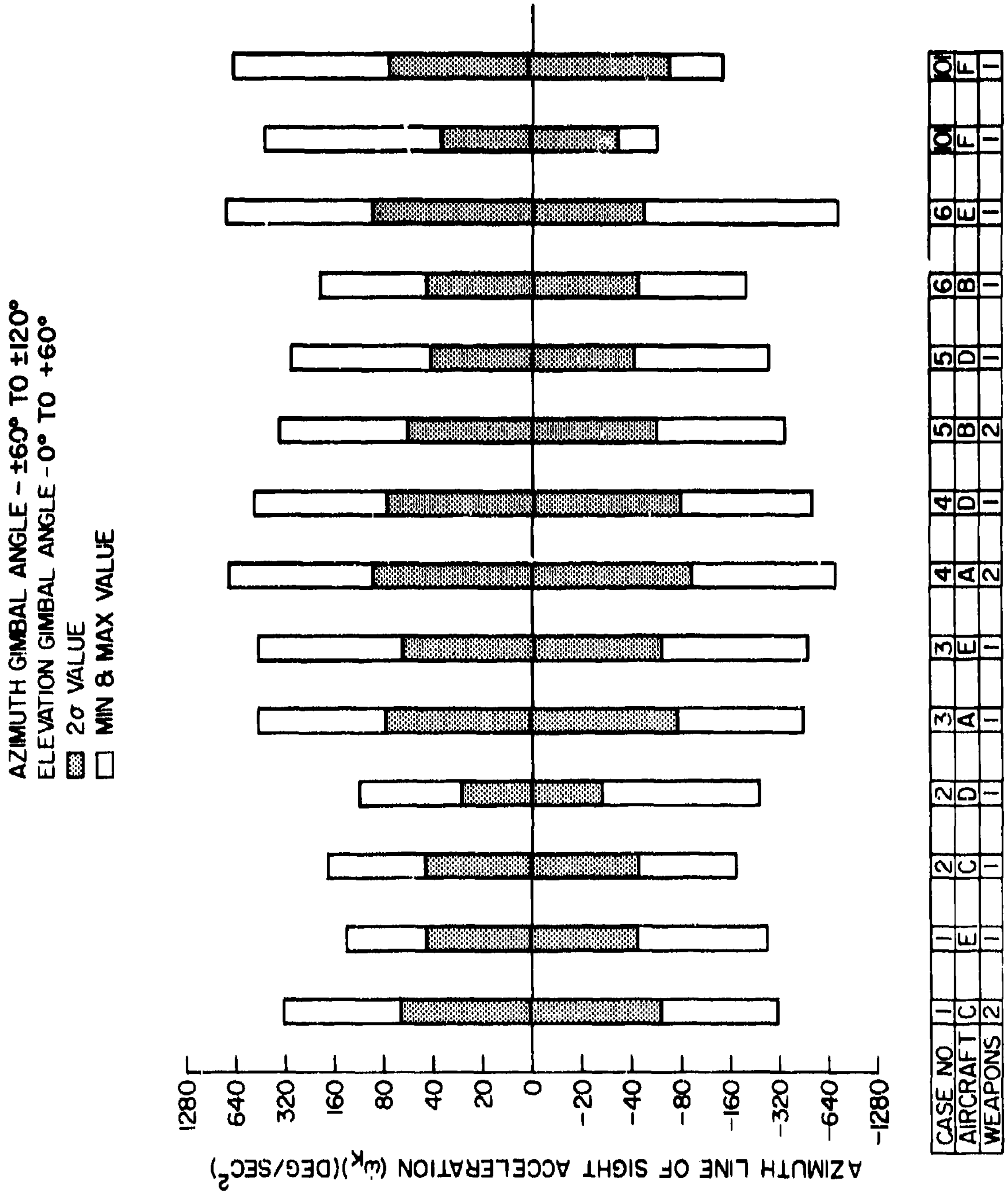
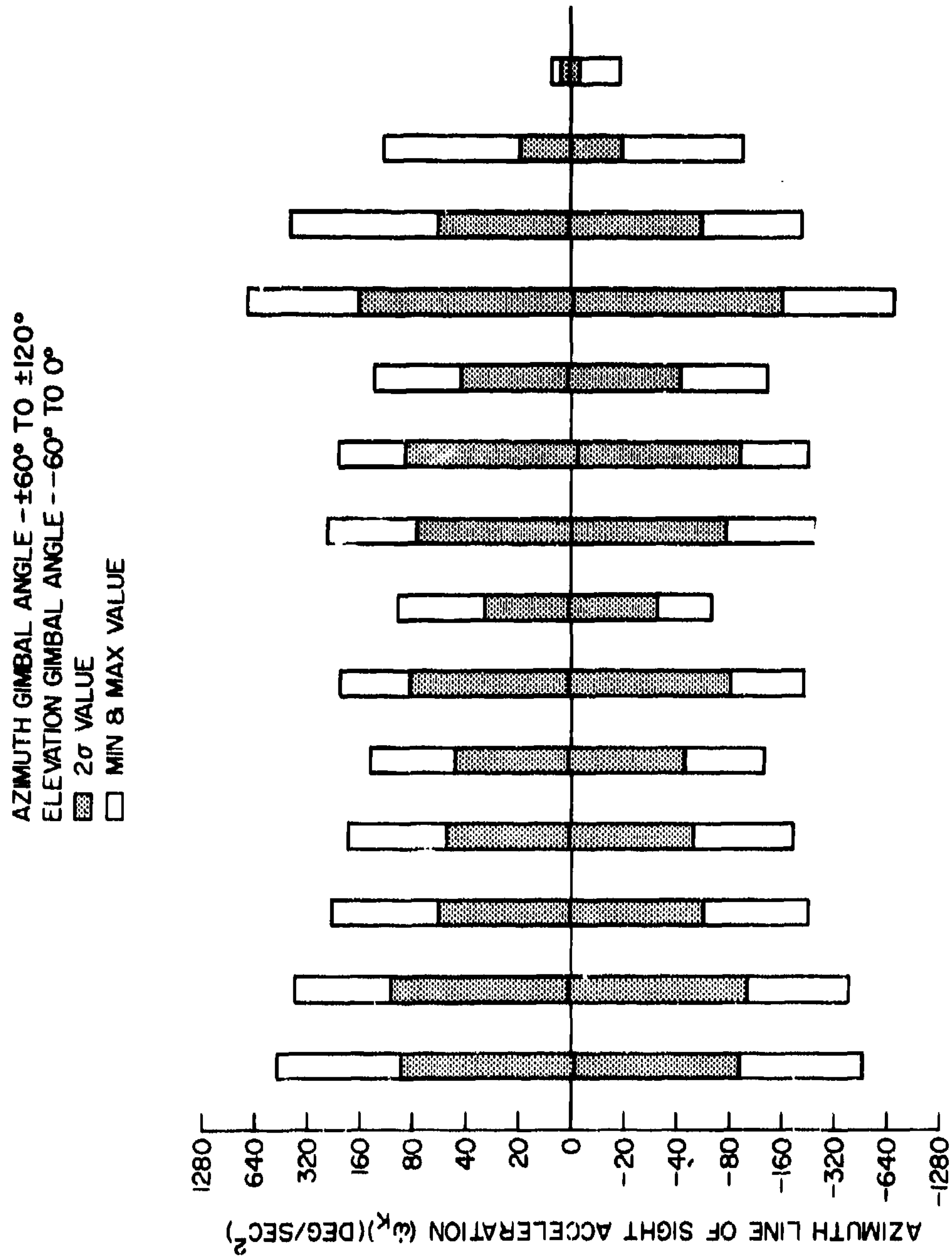
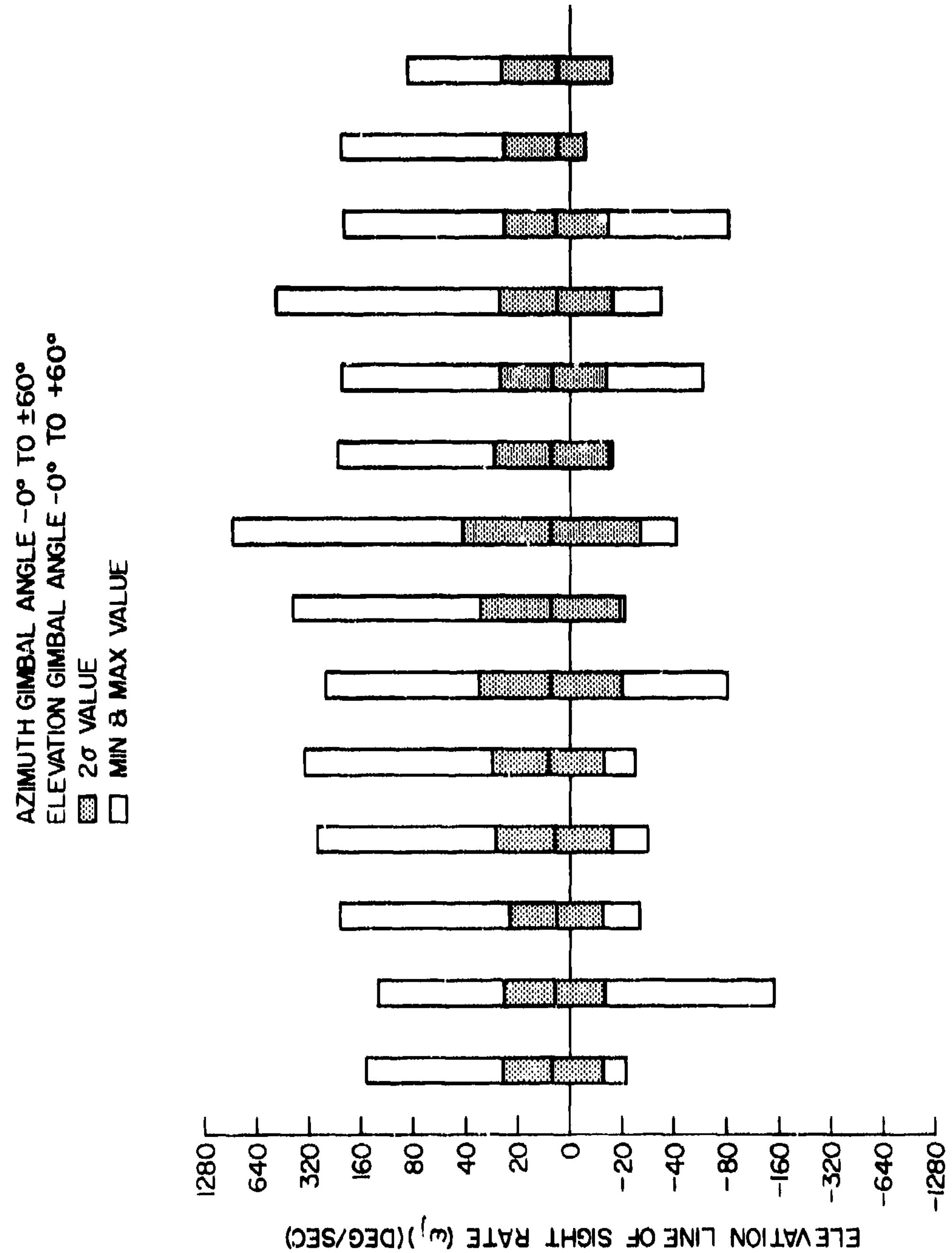


FIG. A-76- SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION



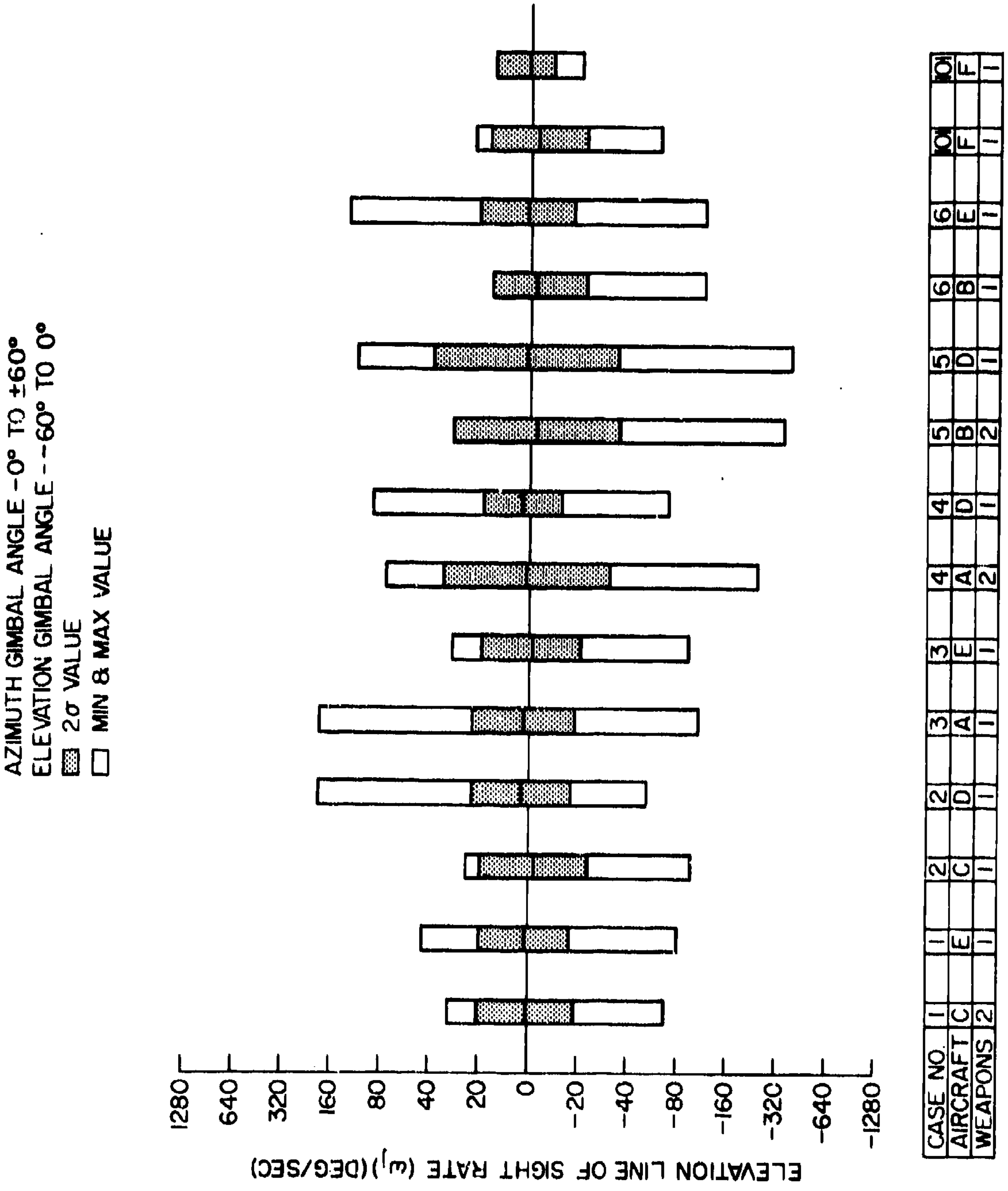
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-77—SUMMARY OF AZIMUTH LINE OF SIGHT ACCELERATION



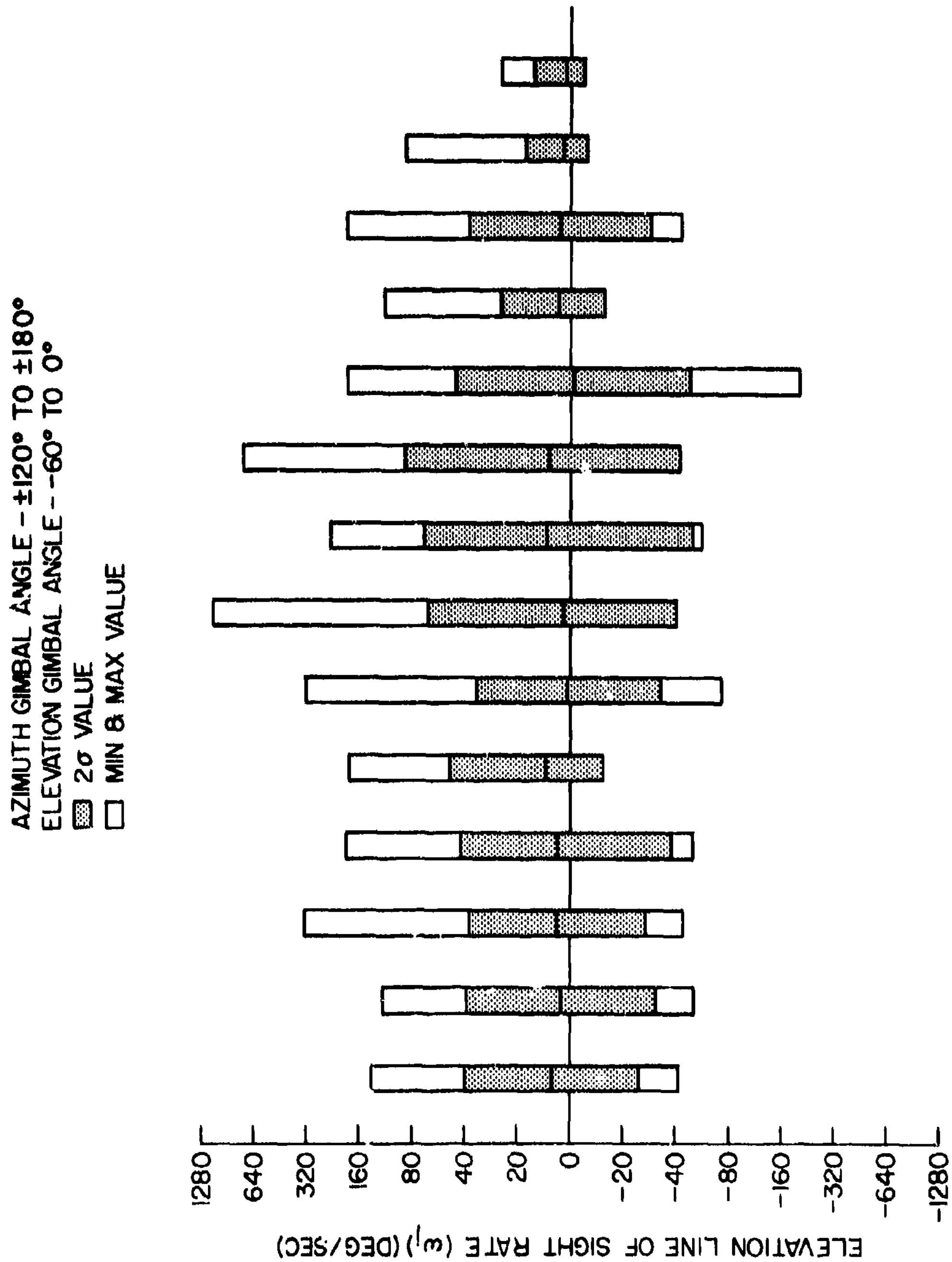
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-78-SUMMARY OF ELEVATION LINE OF SIGHT RATE



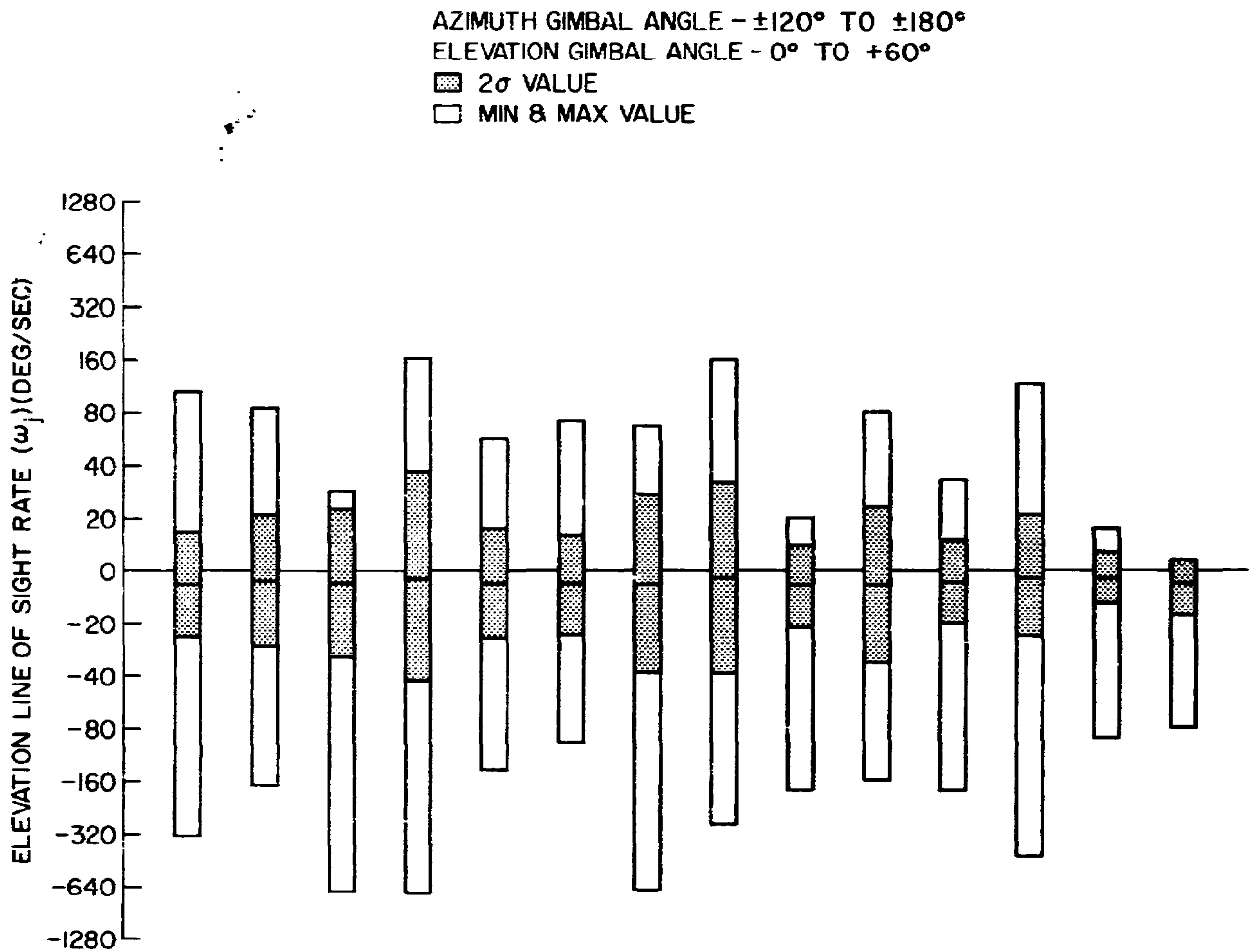
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-79–SUMMARY OF ELEVATION LINE OF SIGHT RATE



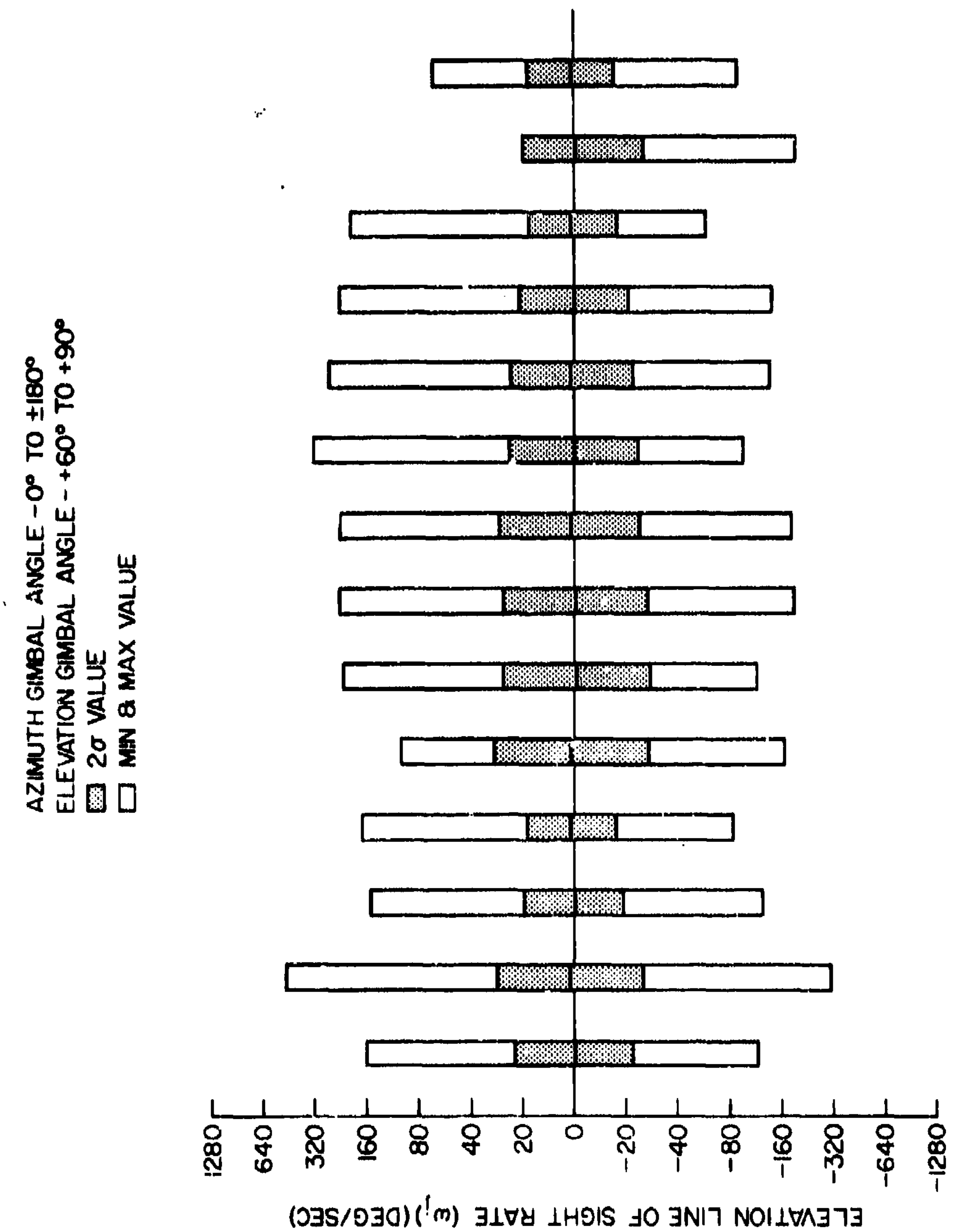
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-80 - SUMMARY OF ELEVATION LINE OF SIGHT RATE



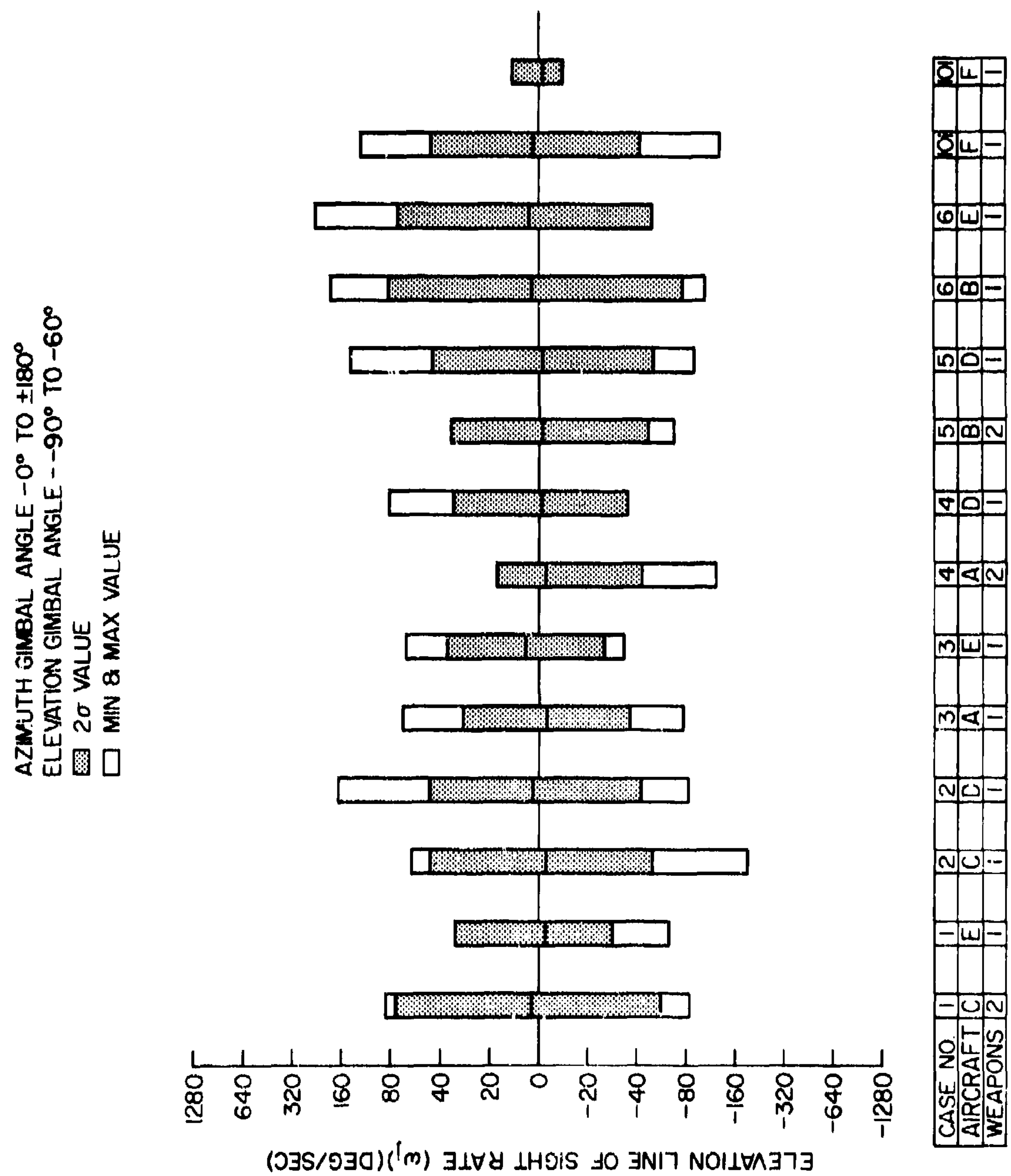
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-81- SUMMARY OF ELEVATION LINE OF SIGHT RATE



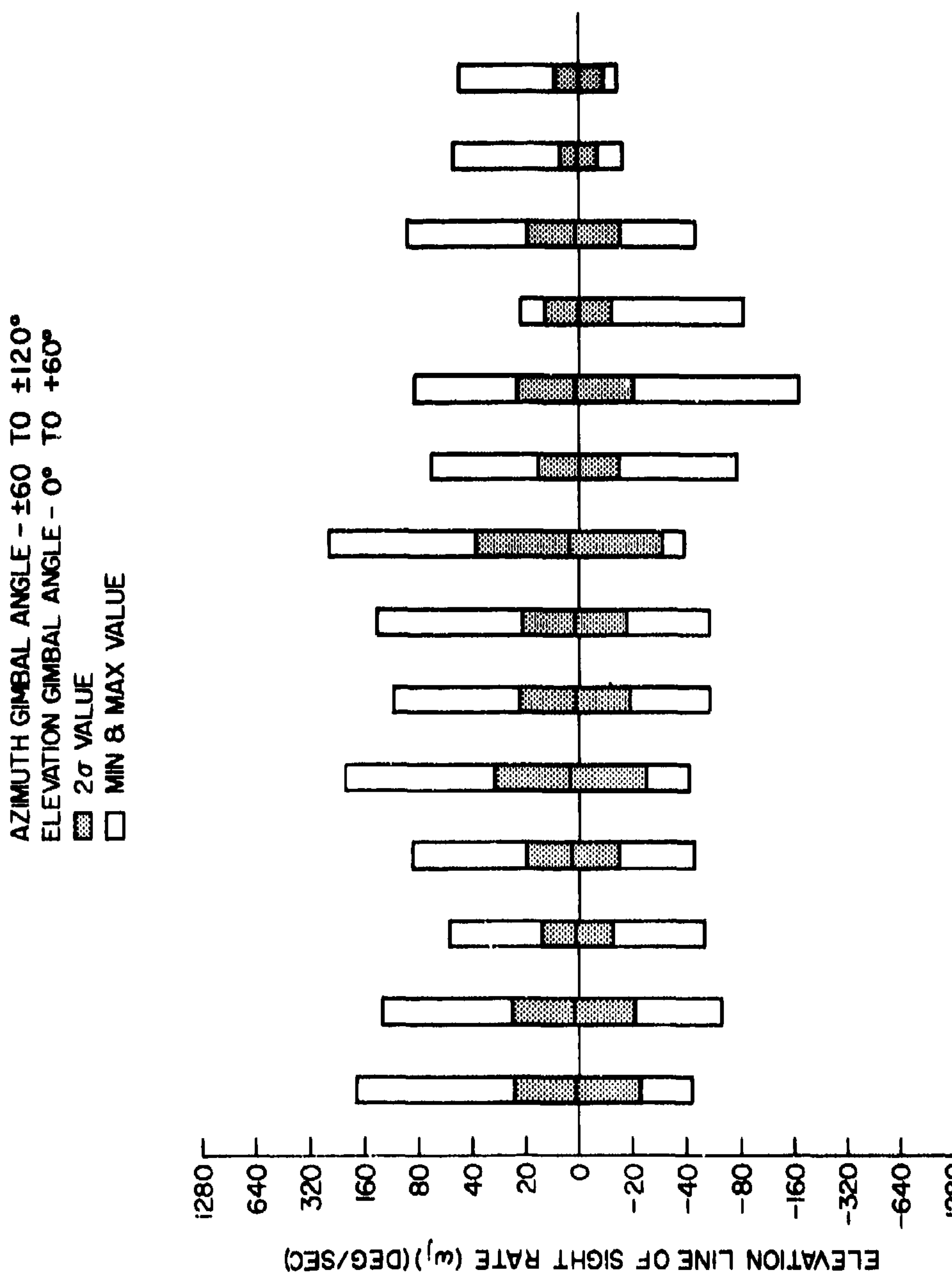
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-82- SUMMARY OF ELEVATION LINE OF SIGHT RATE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-83- SUMMARY OF ELEVATION LINE OF SIGHT RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-84- SUMMARY OF ELEVATION LINE OF SIGHT RATE

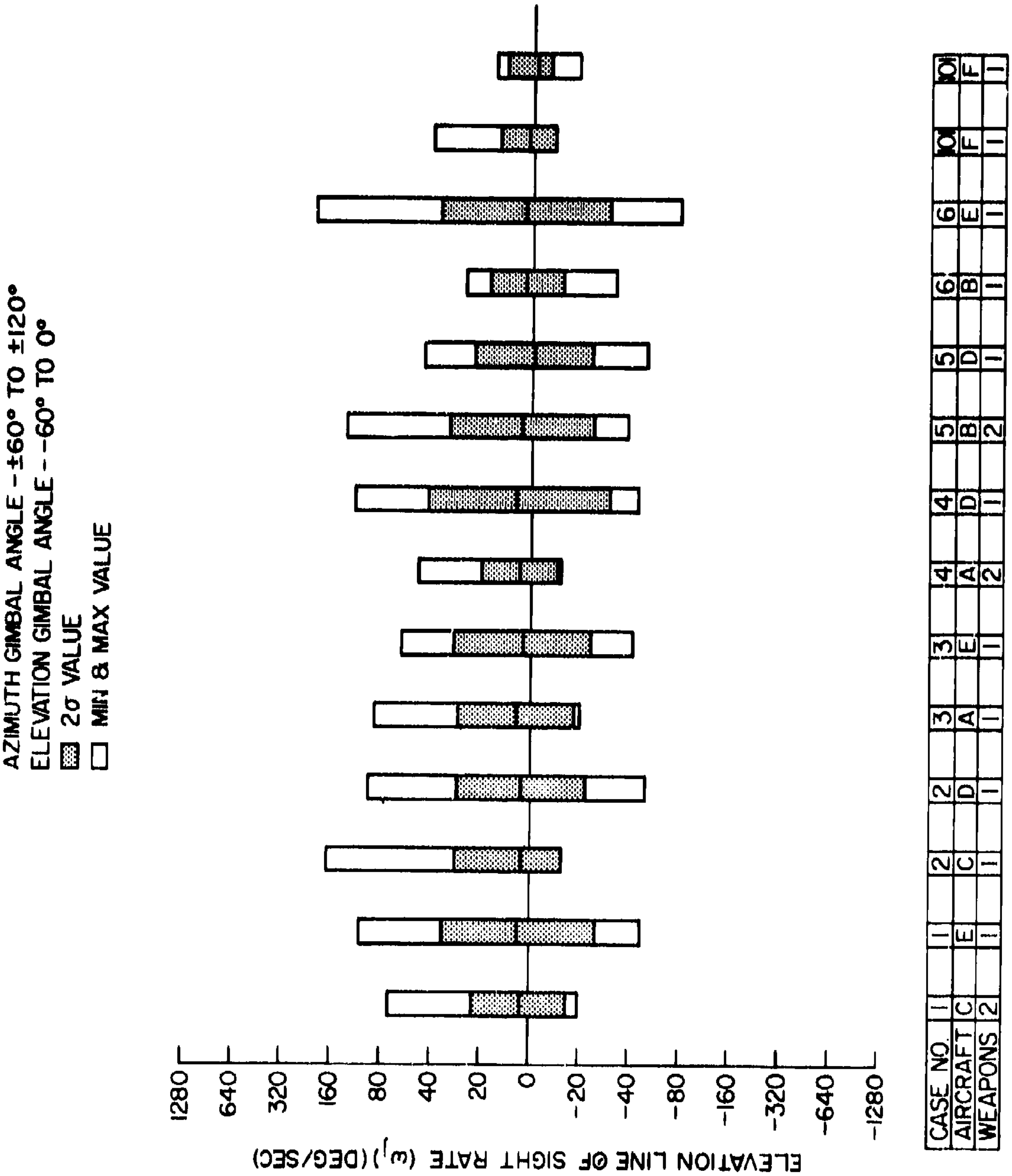


FIG. A-85- SUMMARY OF ELEVATION LINE OF SIGHT RATE

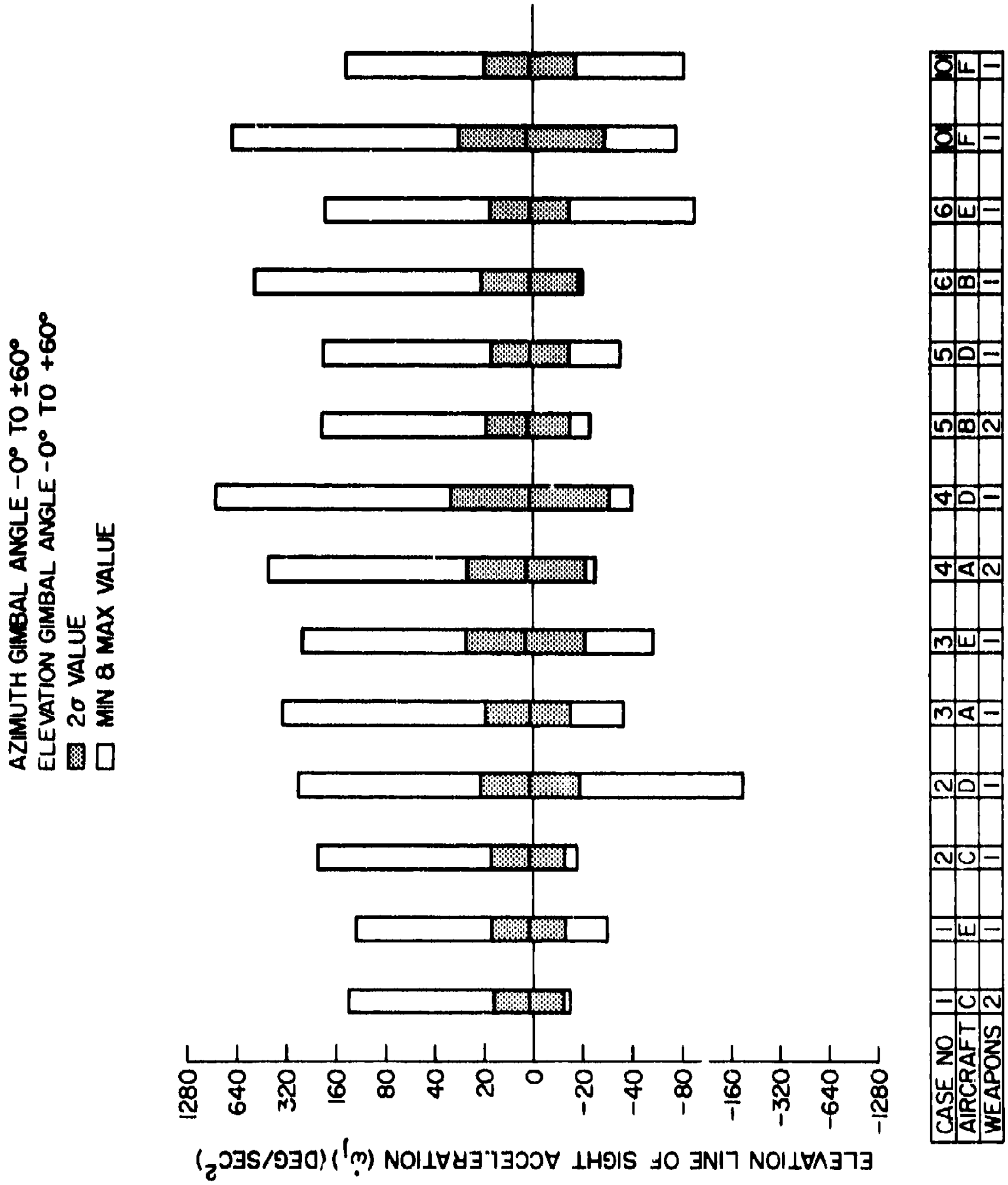
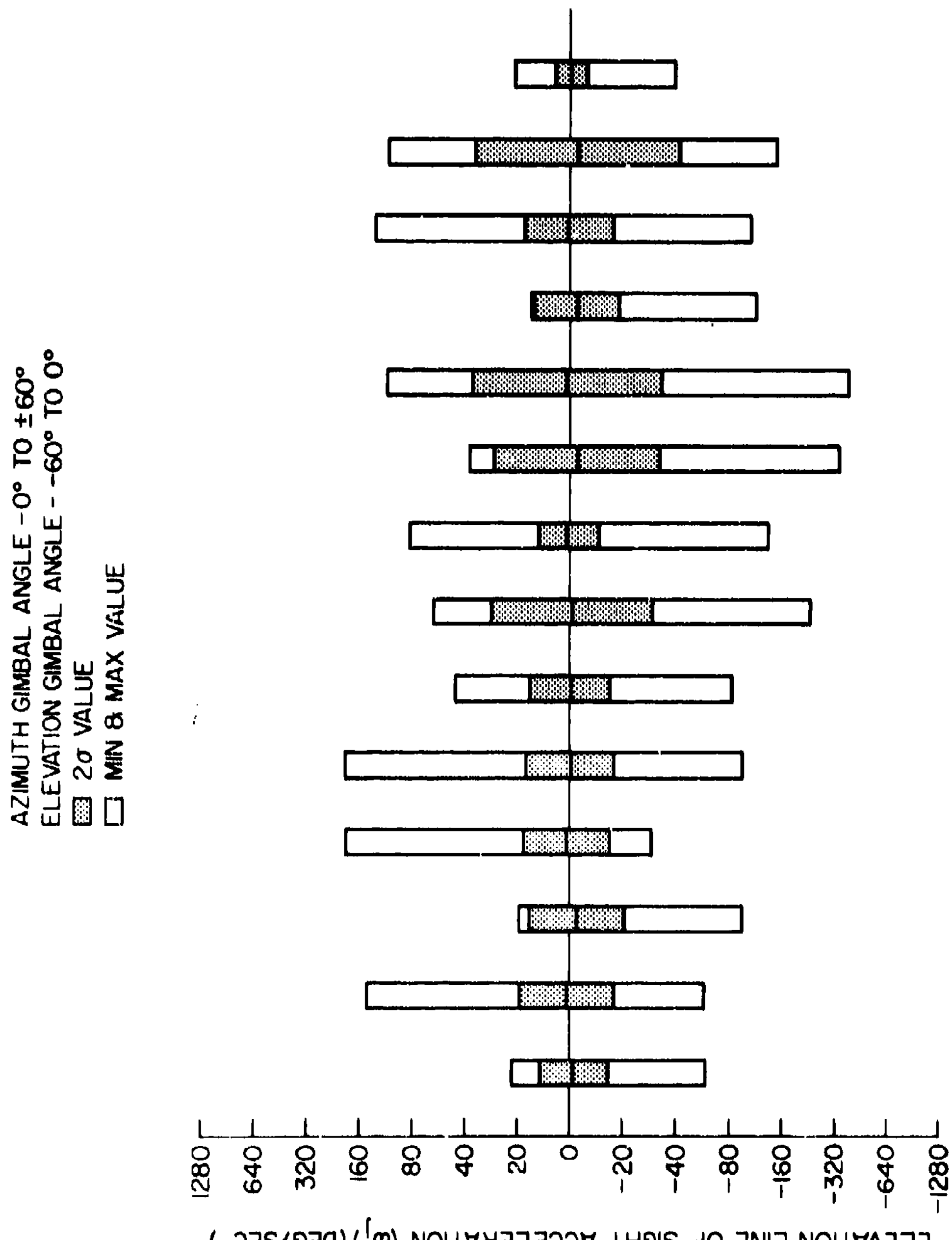
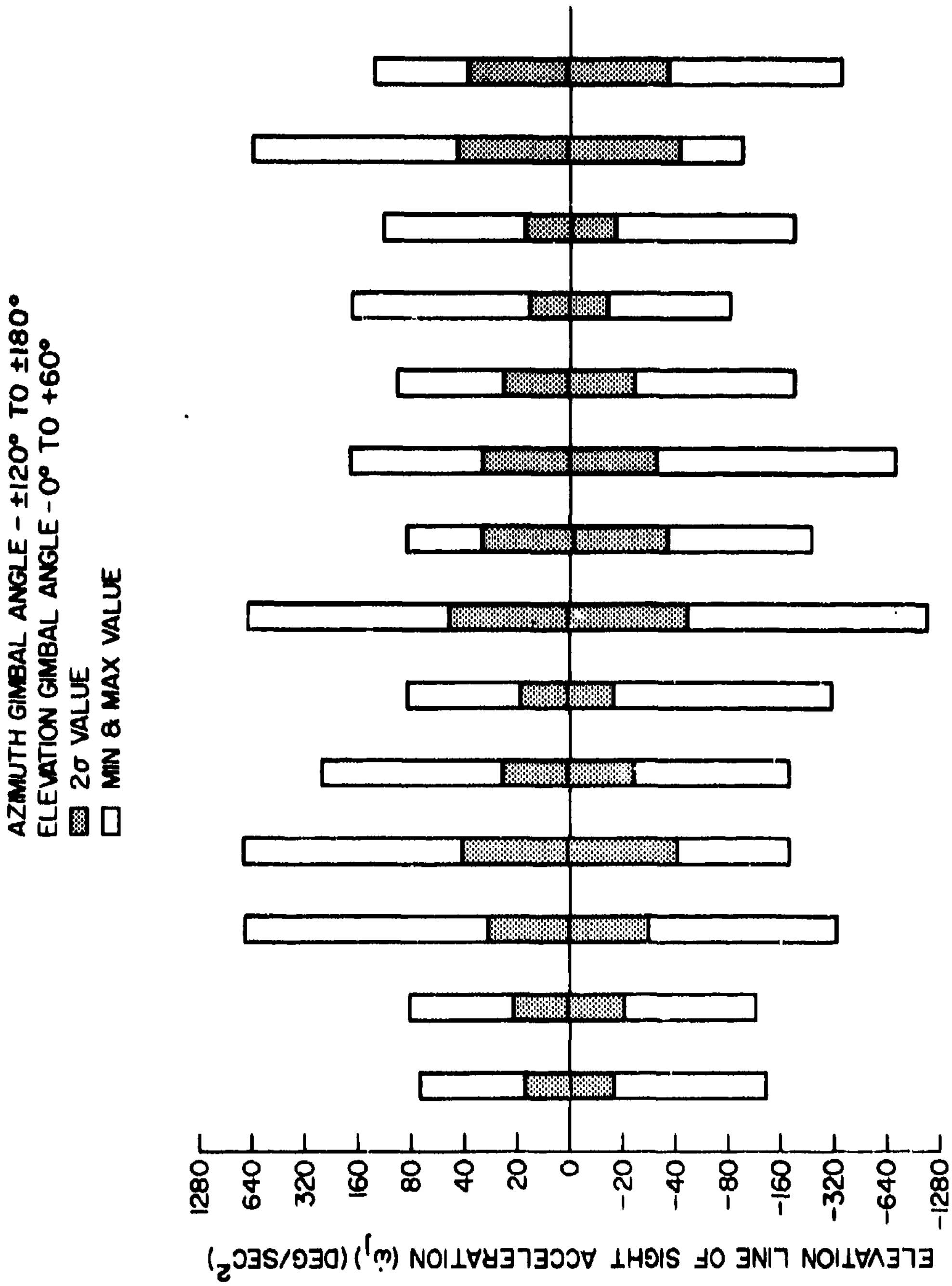


FIG. A-86 - SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-87– SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-88- SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION

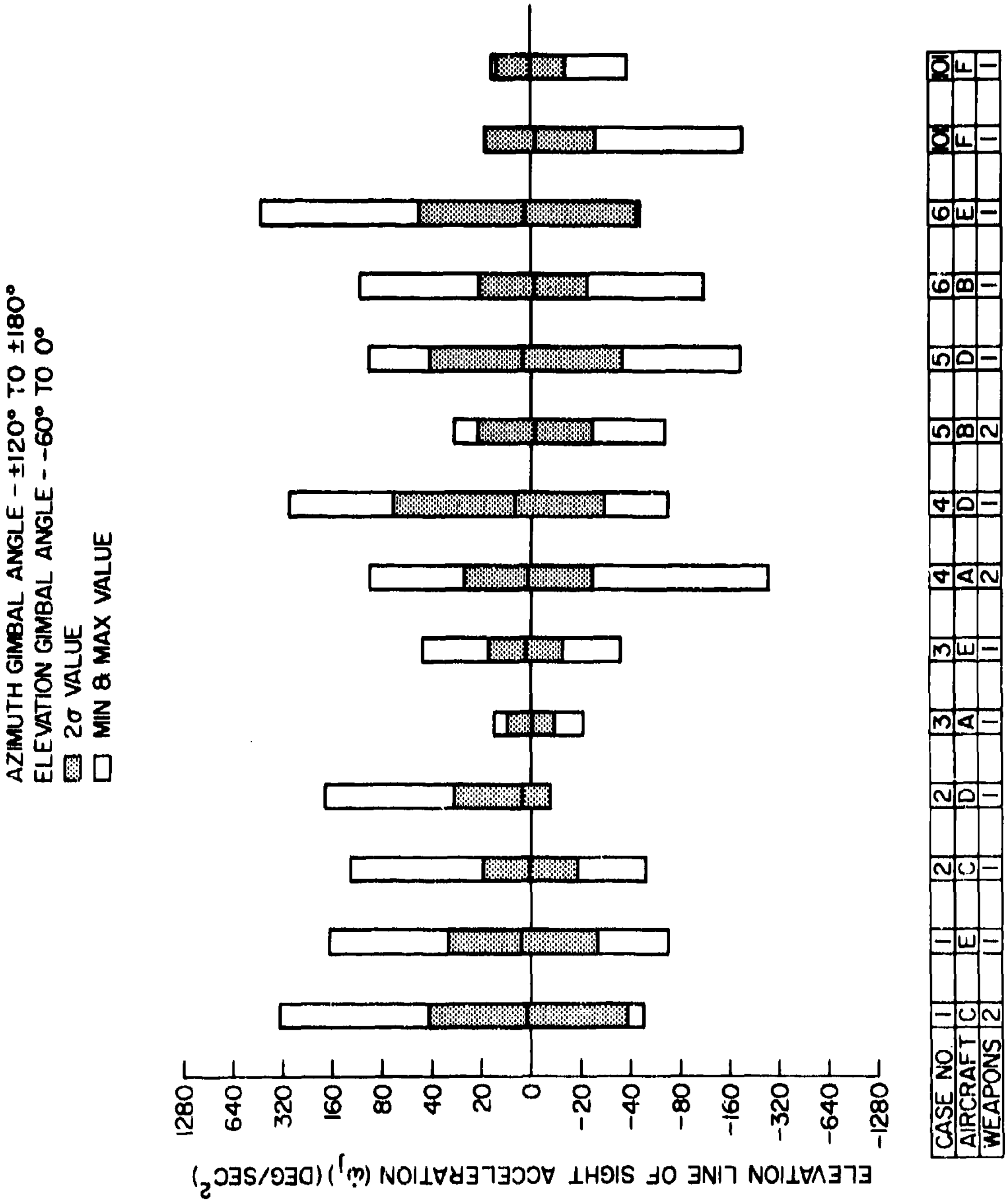


FIG. A-89 -SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION

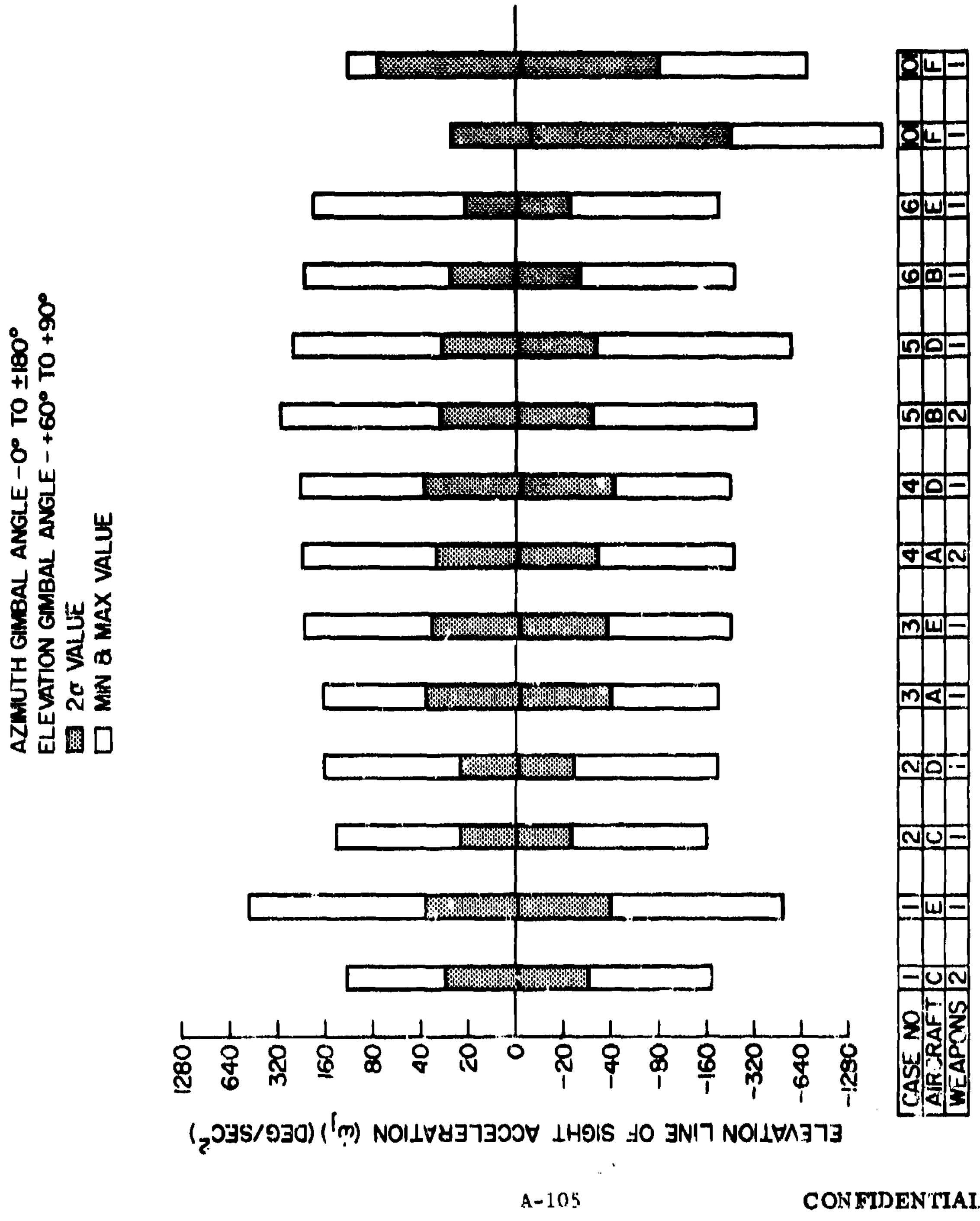
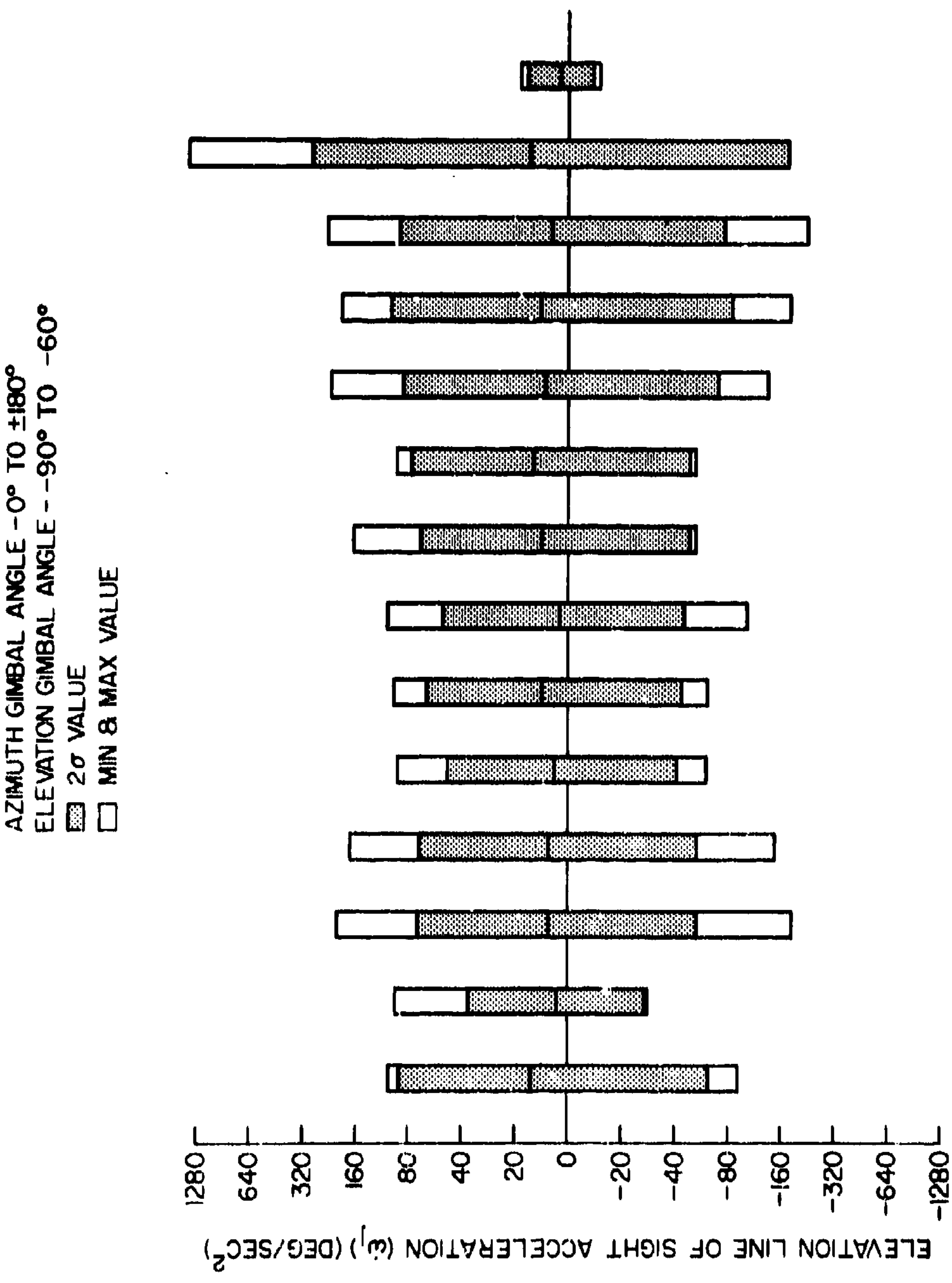


FIG. A-90 - SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-91-SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION

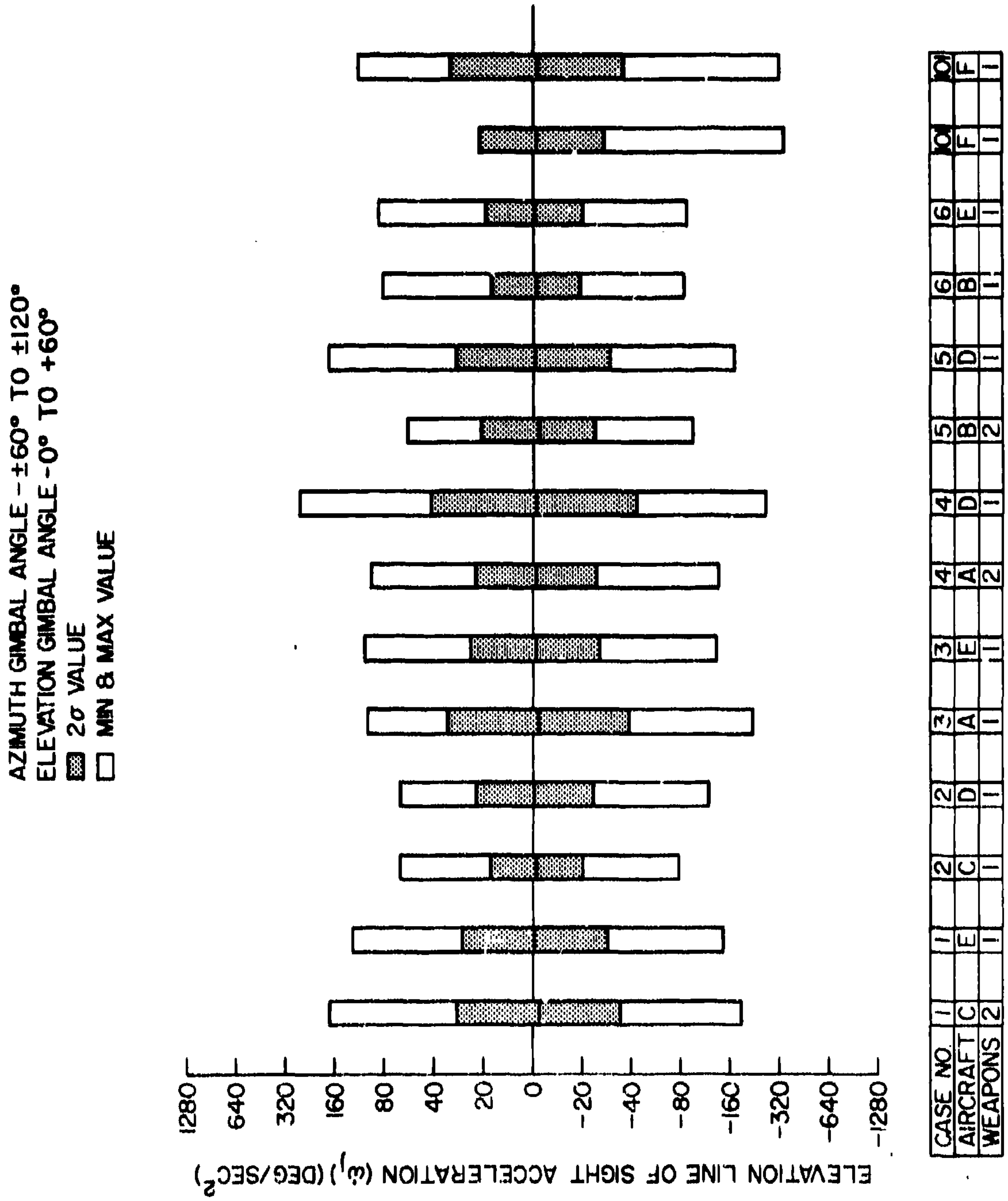


FIG. A-92- SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION

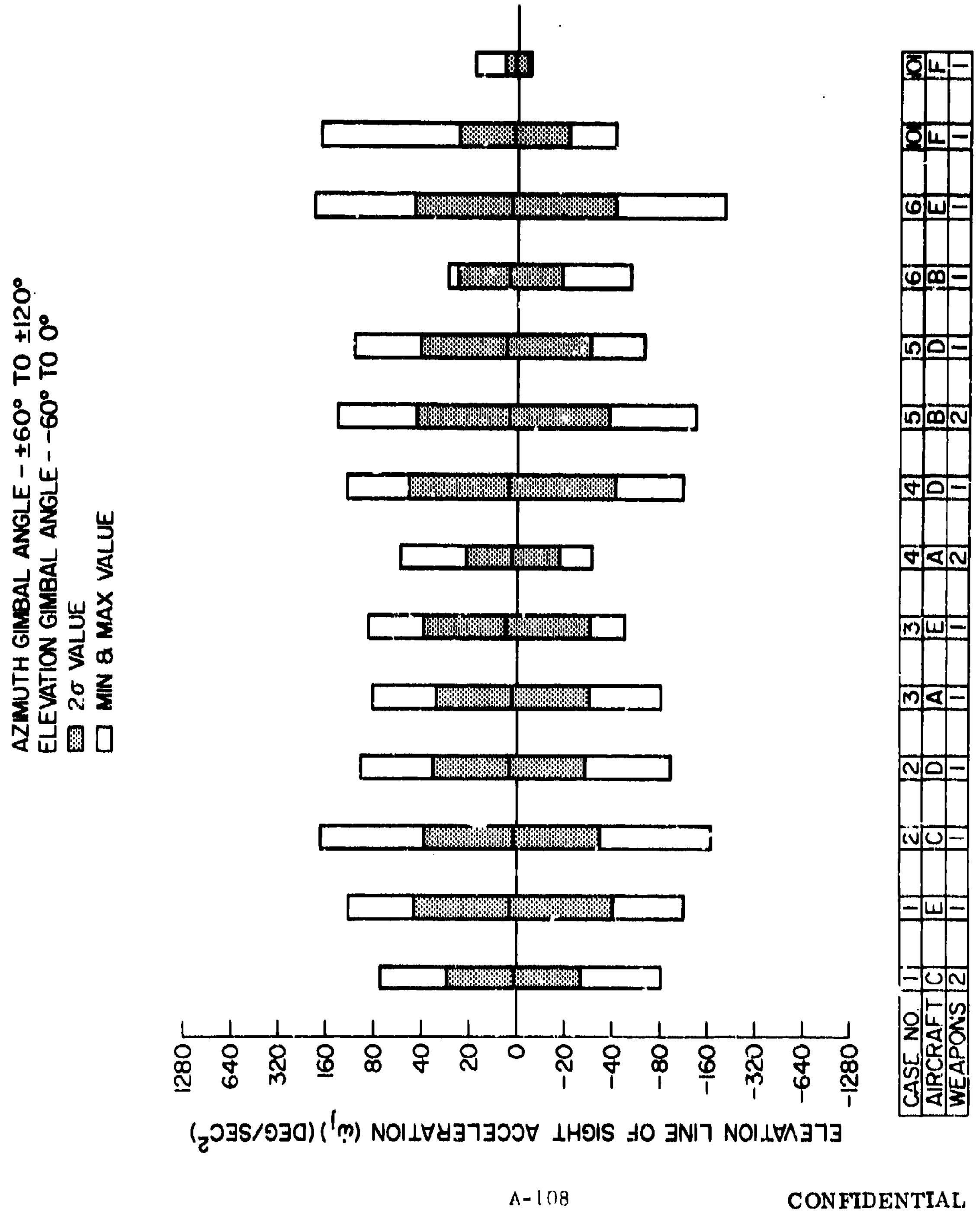
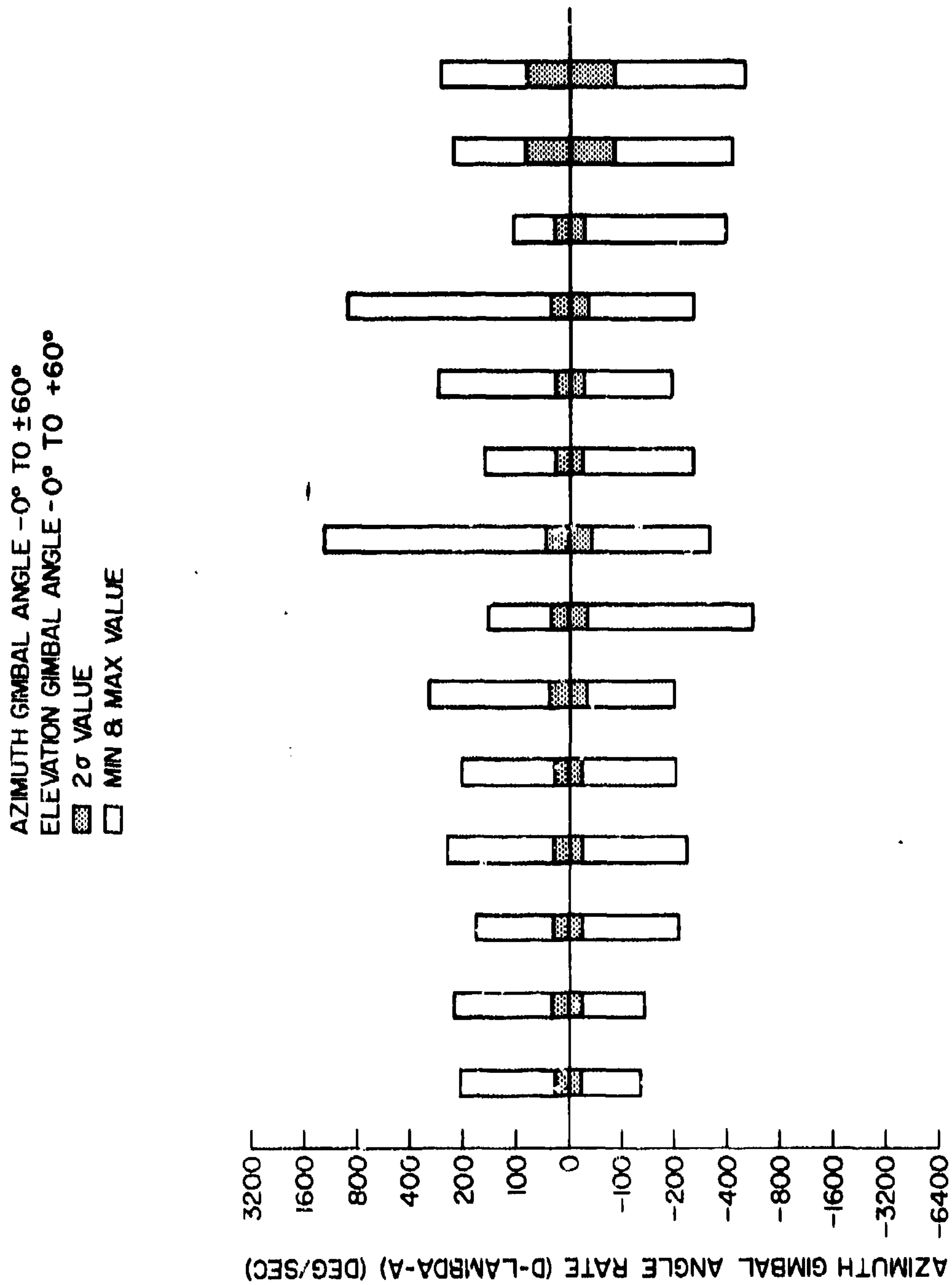


FIG. A-93- SUMMARY OF ELEVATION LINE OF SIGHT ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-94-SUMMARY OF AZIMUTH GIMBAL ANGLE RATE

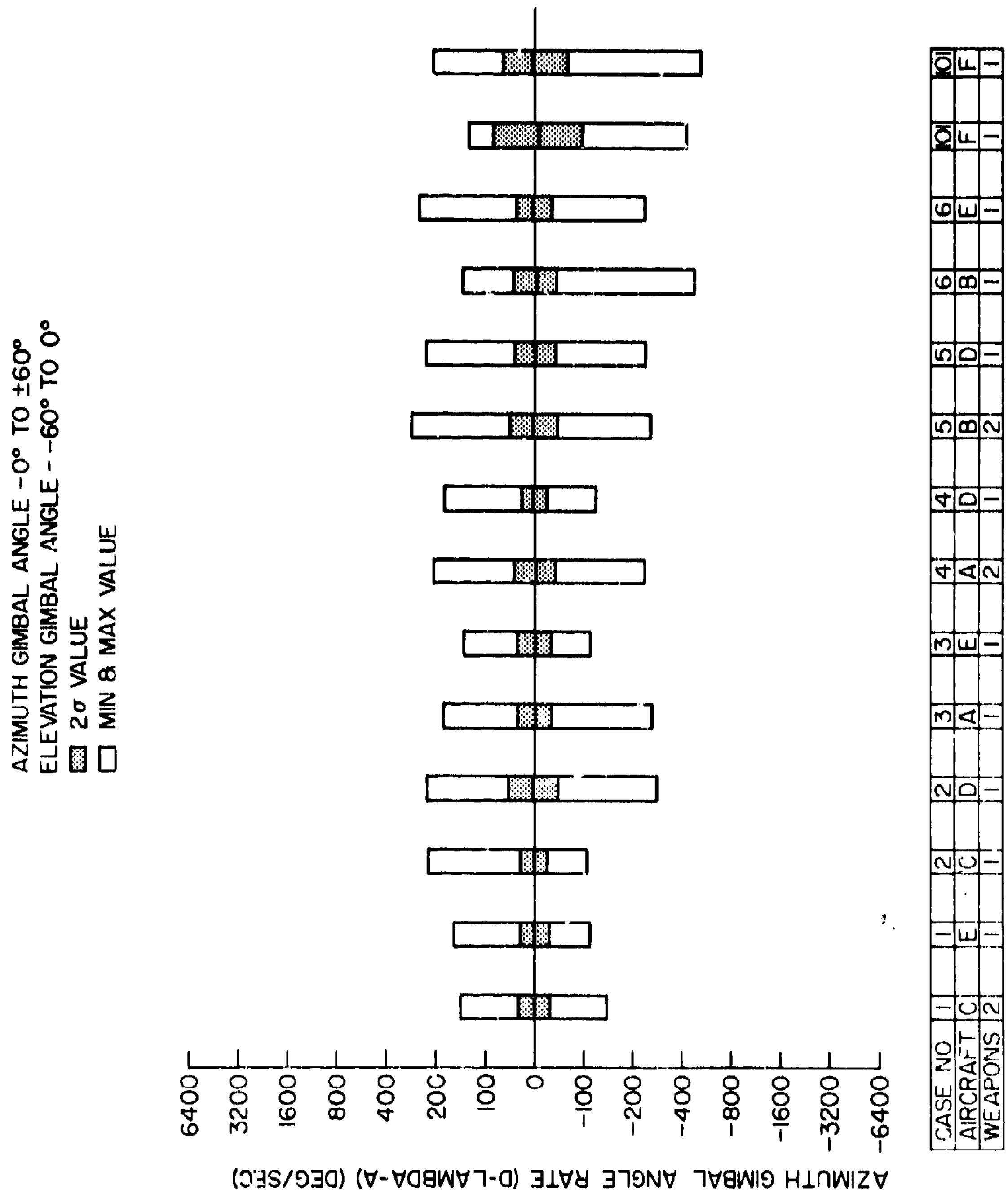


FIG. A-95–SUMMARY OF AZIMUTH GIMBAL ANGLE RATE

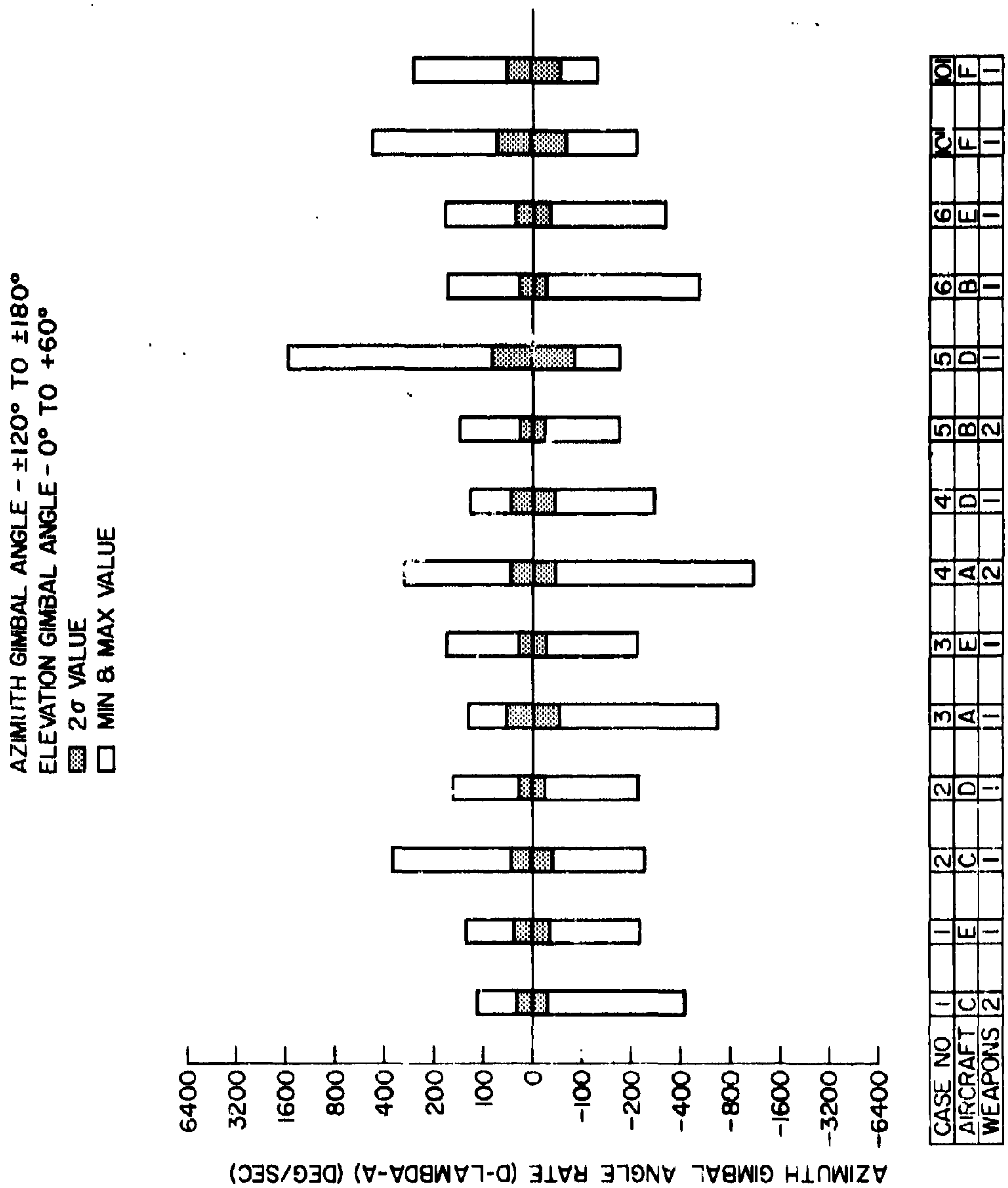
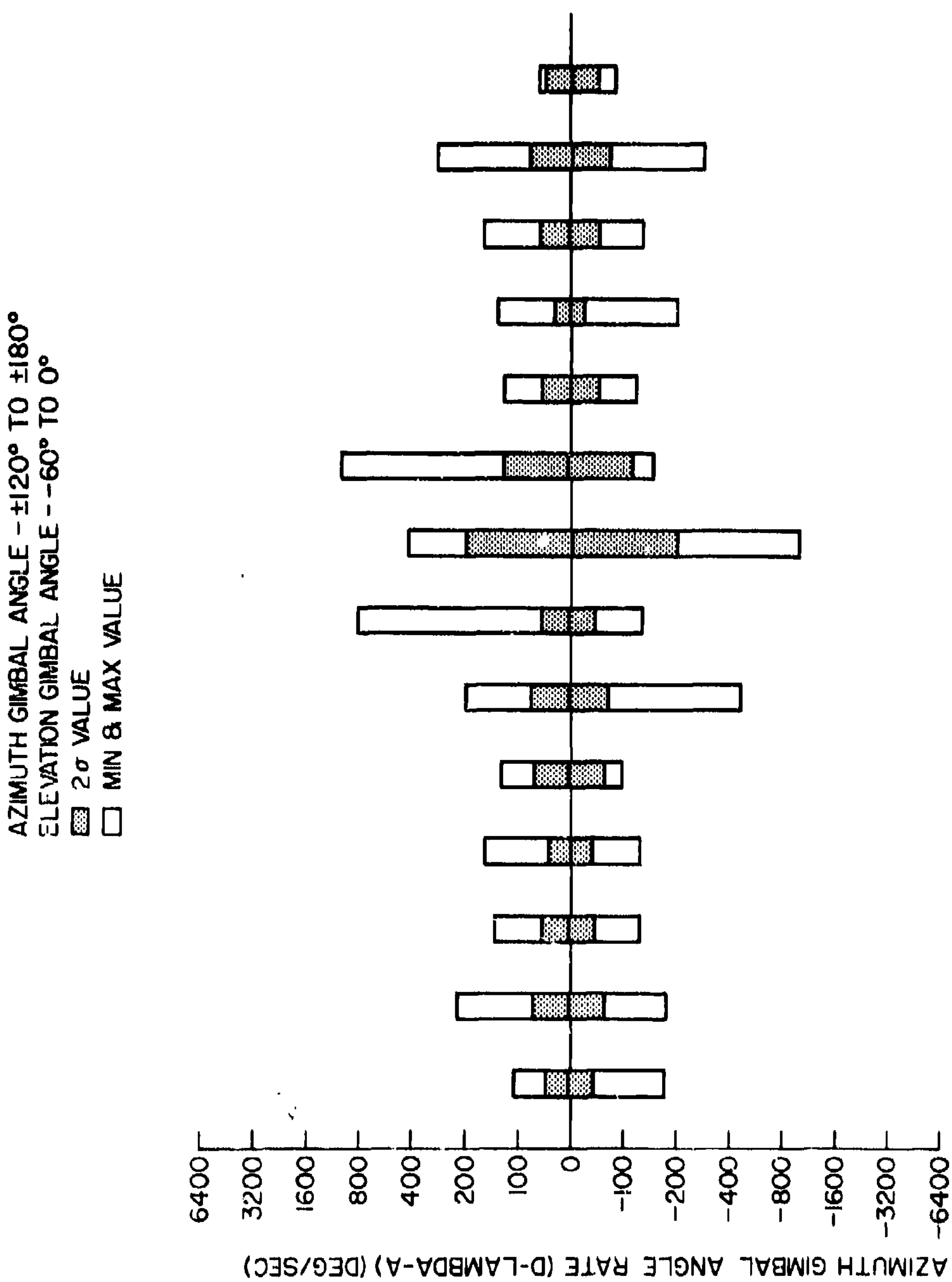
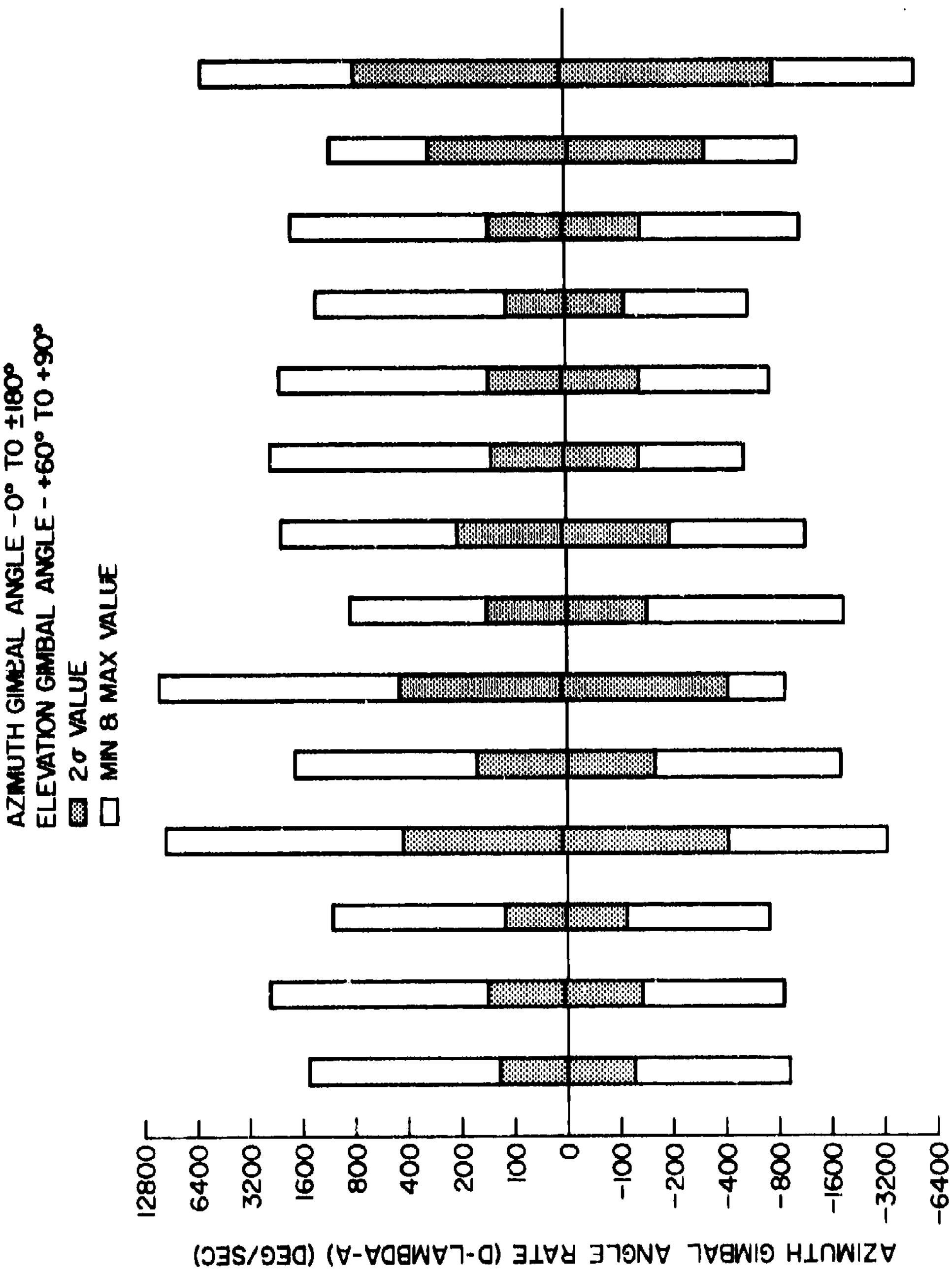


FIG. A-96–SUMMARY OF AZIMUTH GIMBAL ANGLE RATE



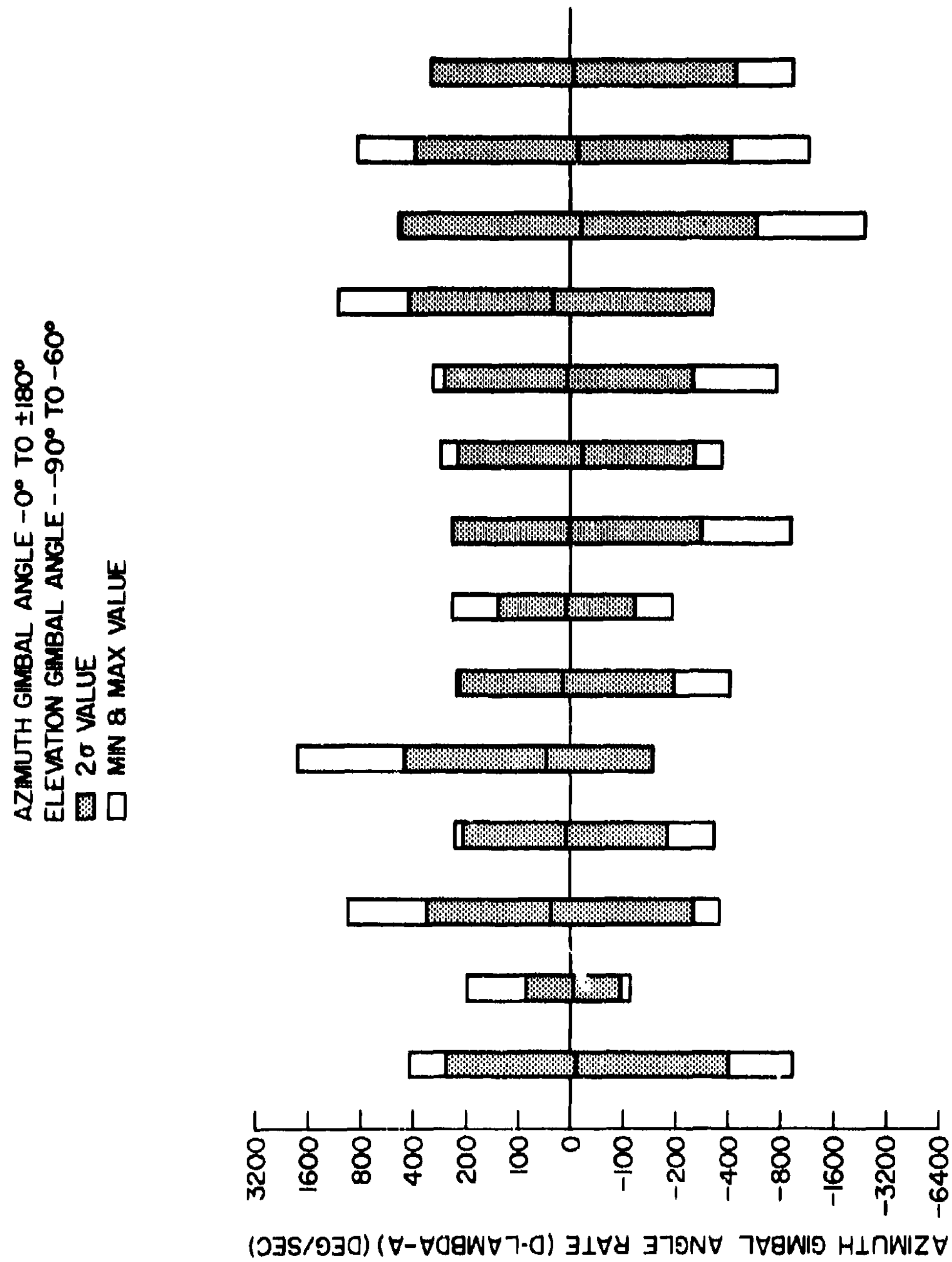
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-97- SUMMARY OF AZIMUTH GIMBAL ANGLE RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-98-SUMMARY OF AZIMUTH GIMBAL ANGLE RATE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-99- SUMMARY OF AZIMUTH GIMBAL ANGLE RATE

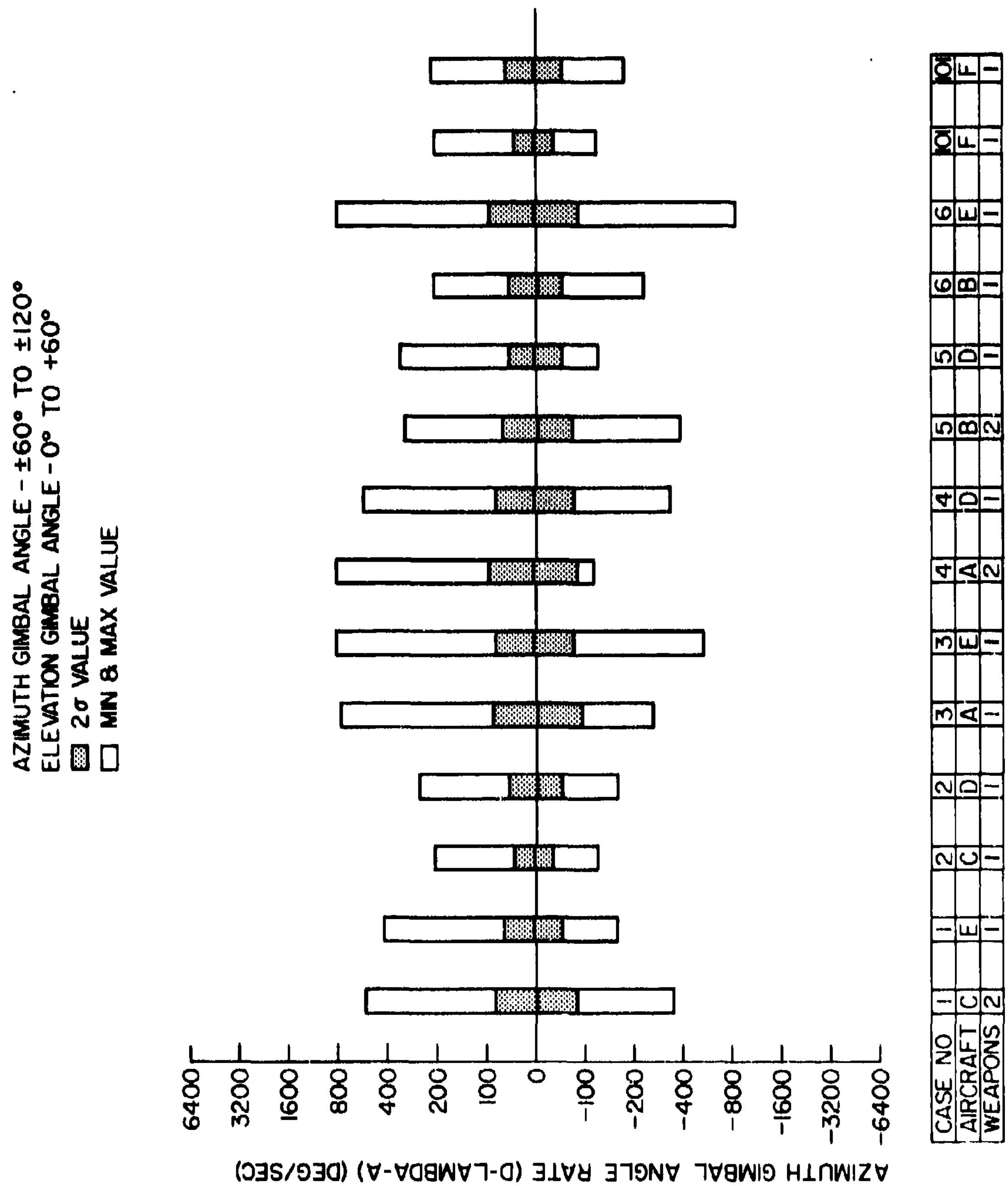
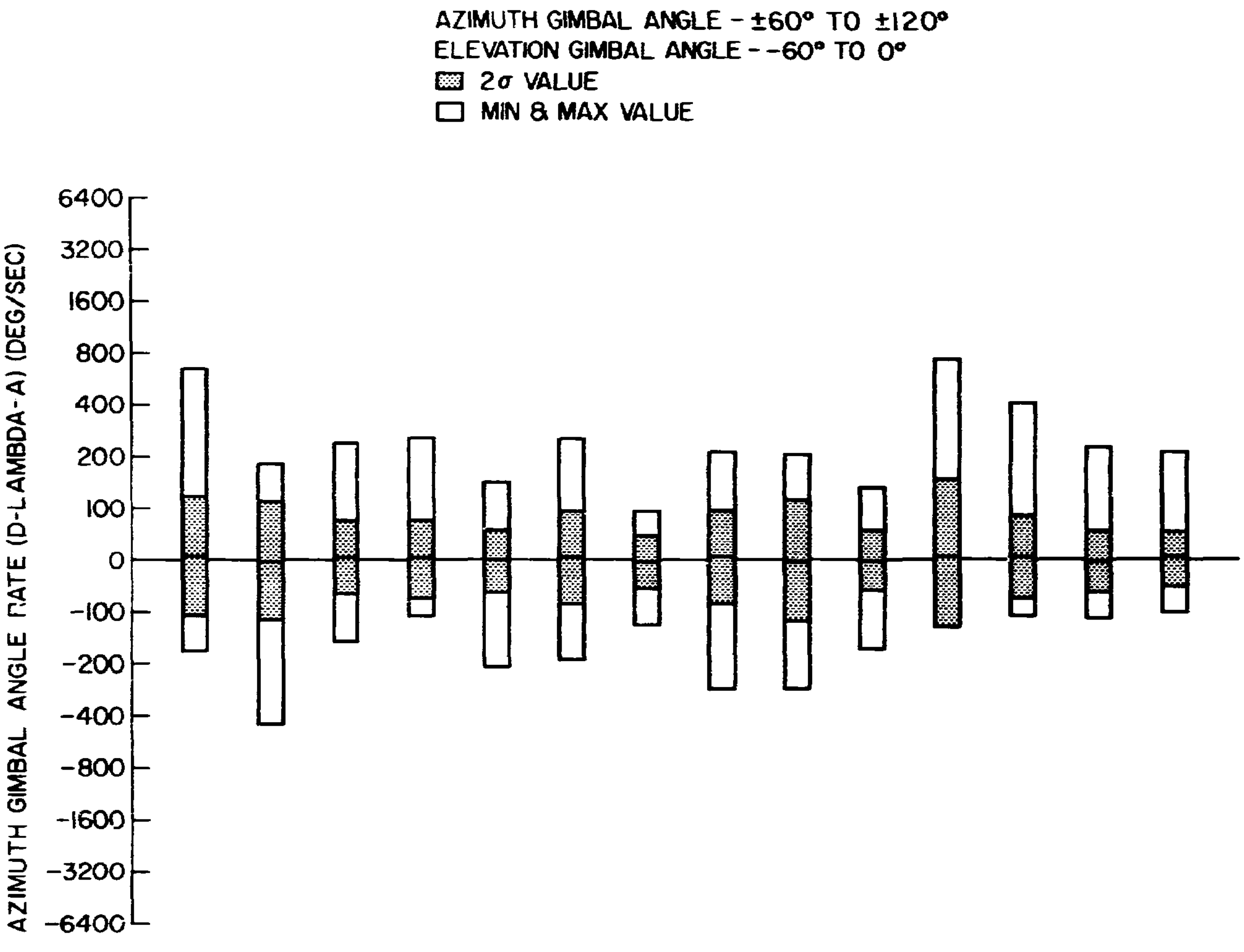


FIG. A-100–SUMMARY OF AZIMUTH GIMBAL ANGLE RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG.A-101-SUMMARY OF AZIMUTH GIMBAL ANGLE RATE

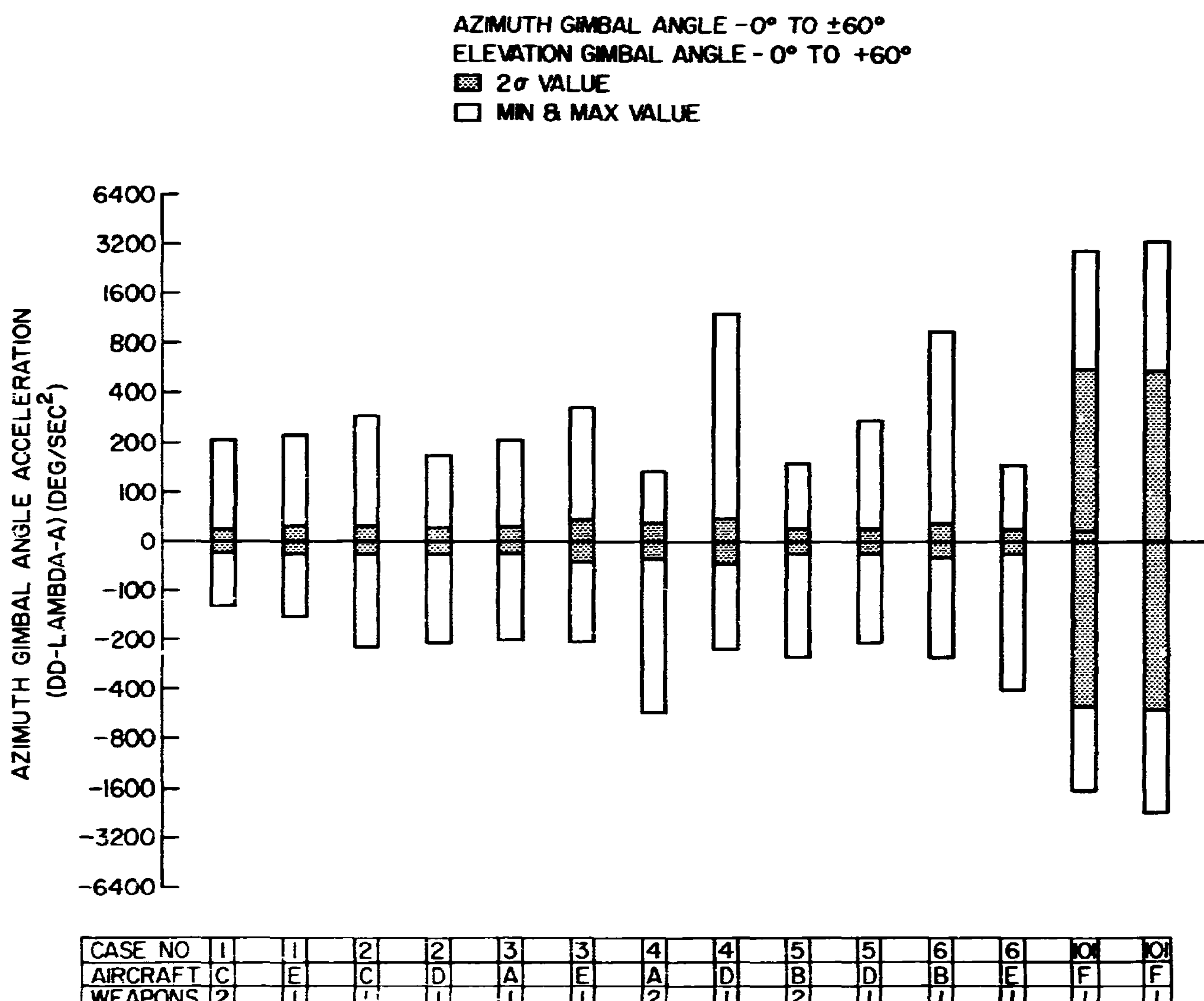


FIG. A-102–SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION

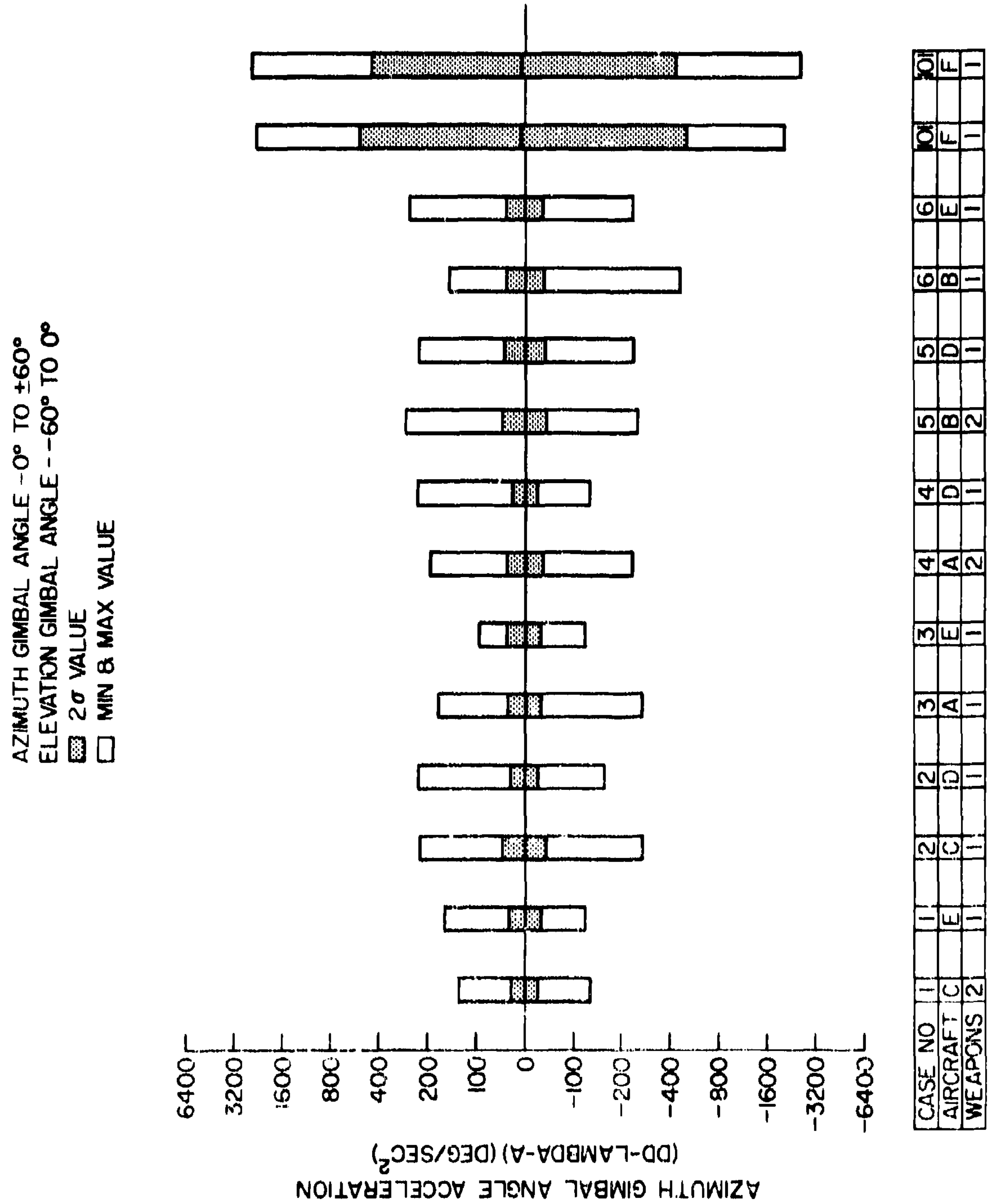
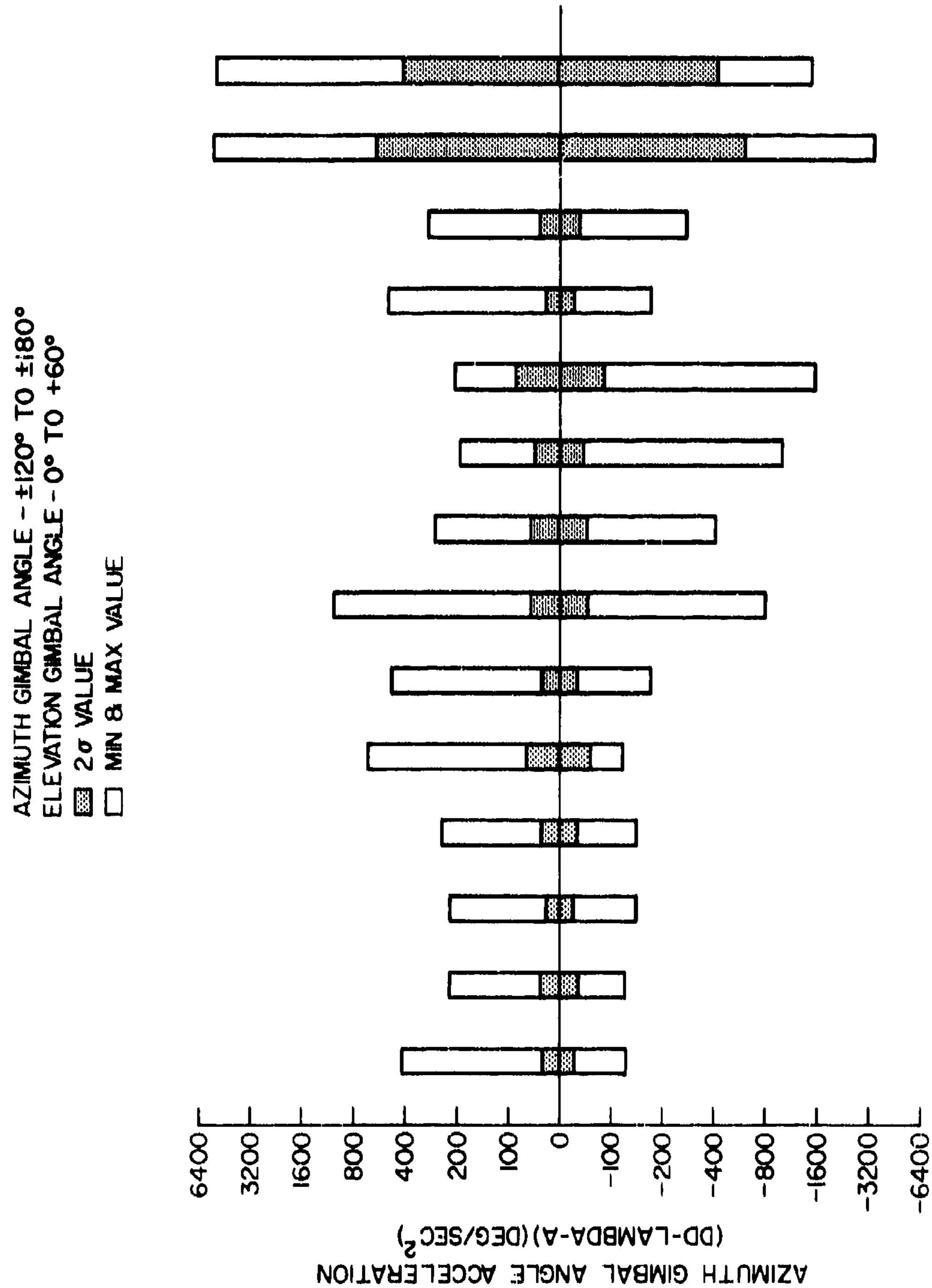


FIG. A-103—SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-104-SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION

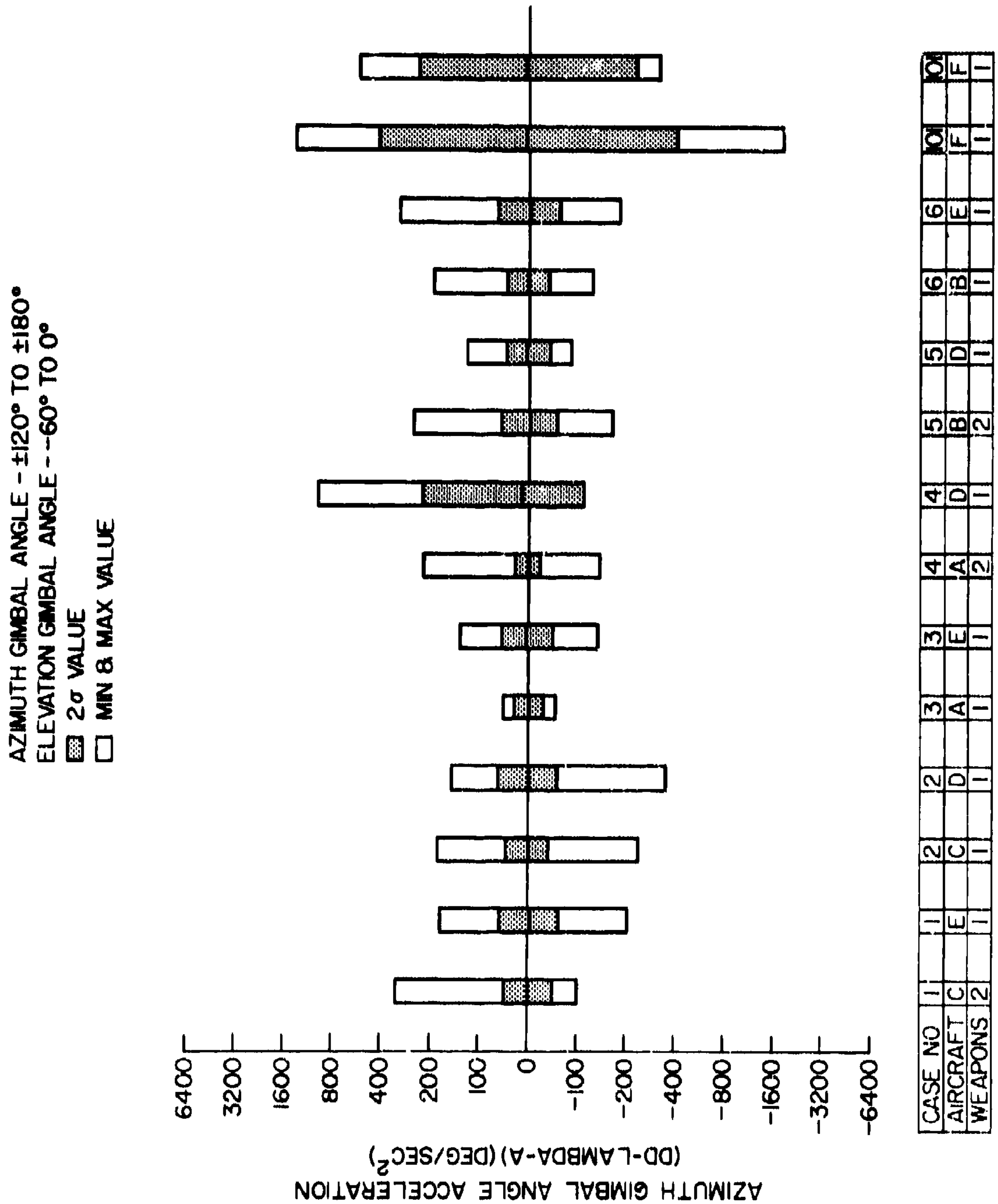


FIG. A-105-SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION

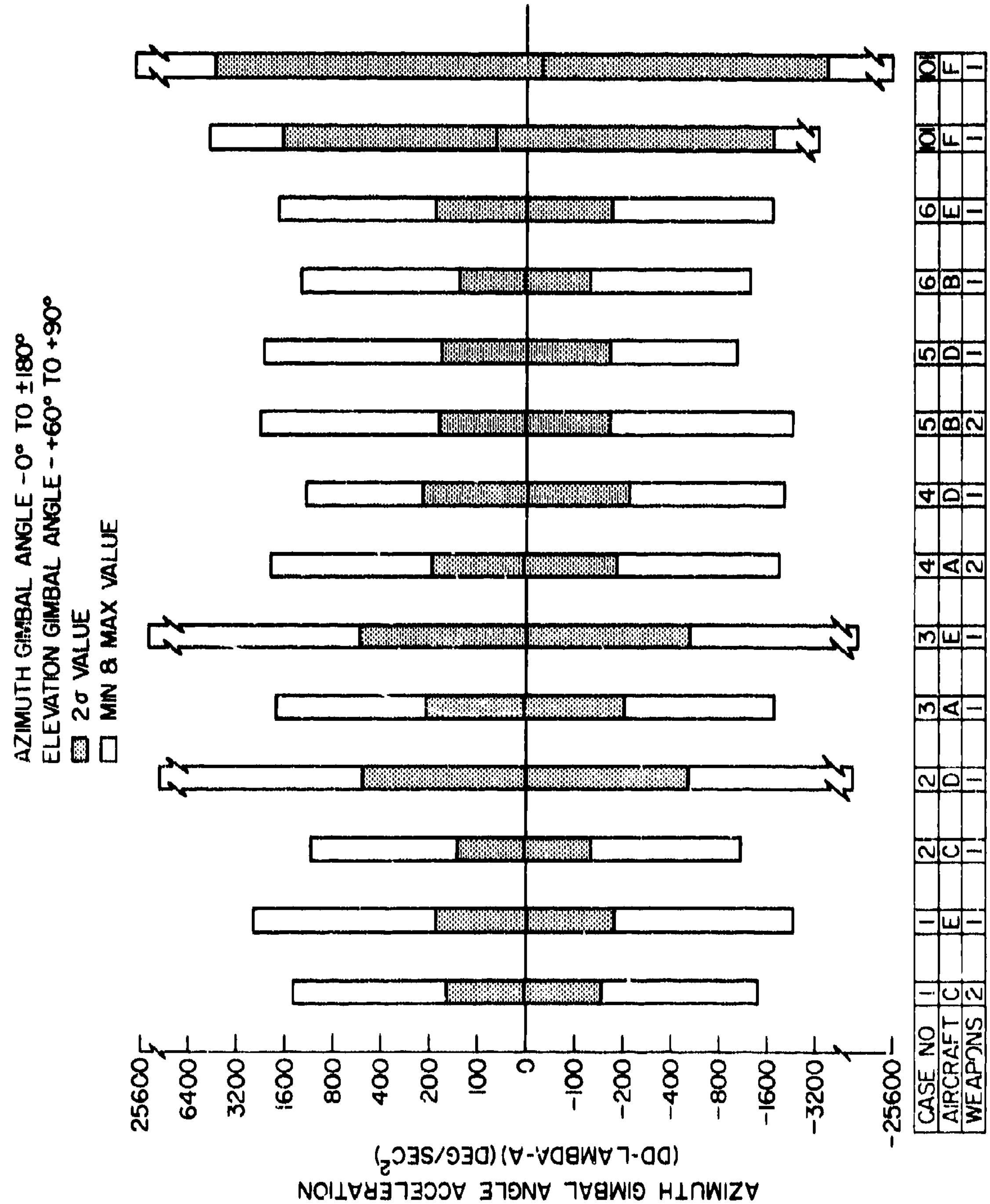


FIG. A-106–SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION

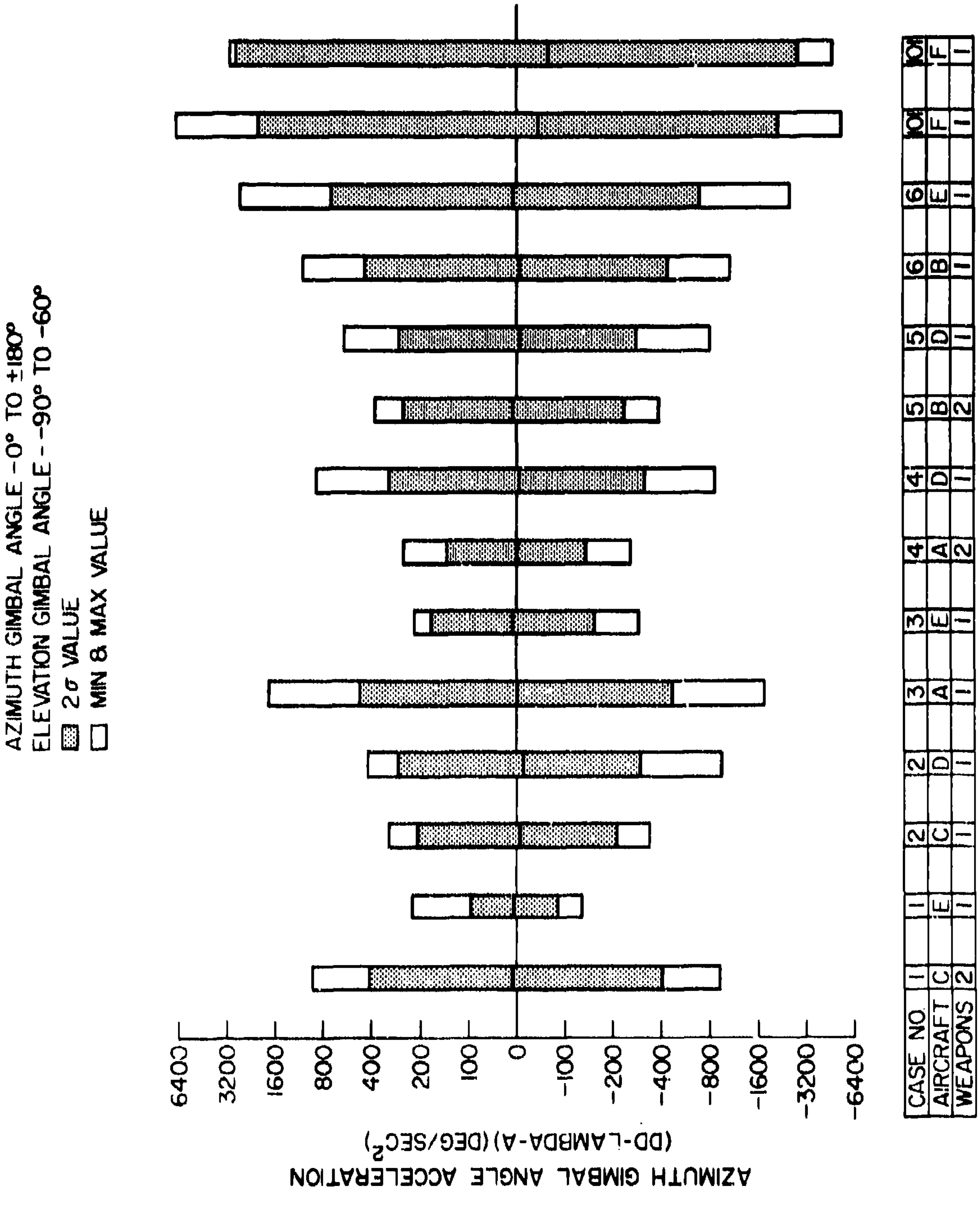
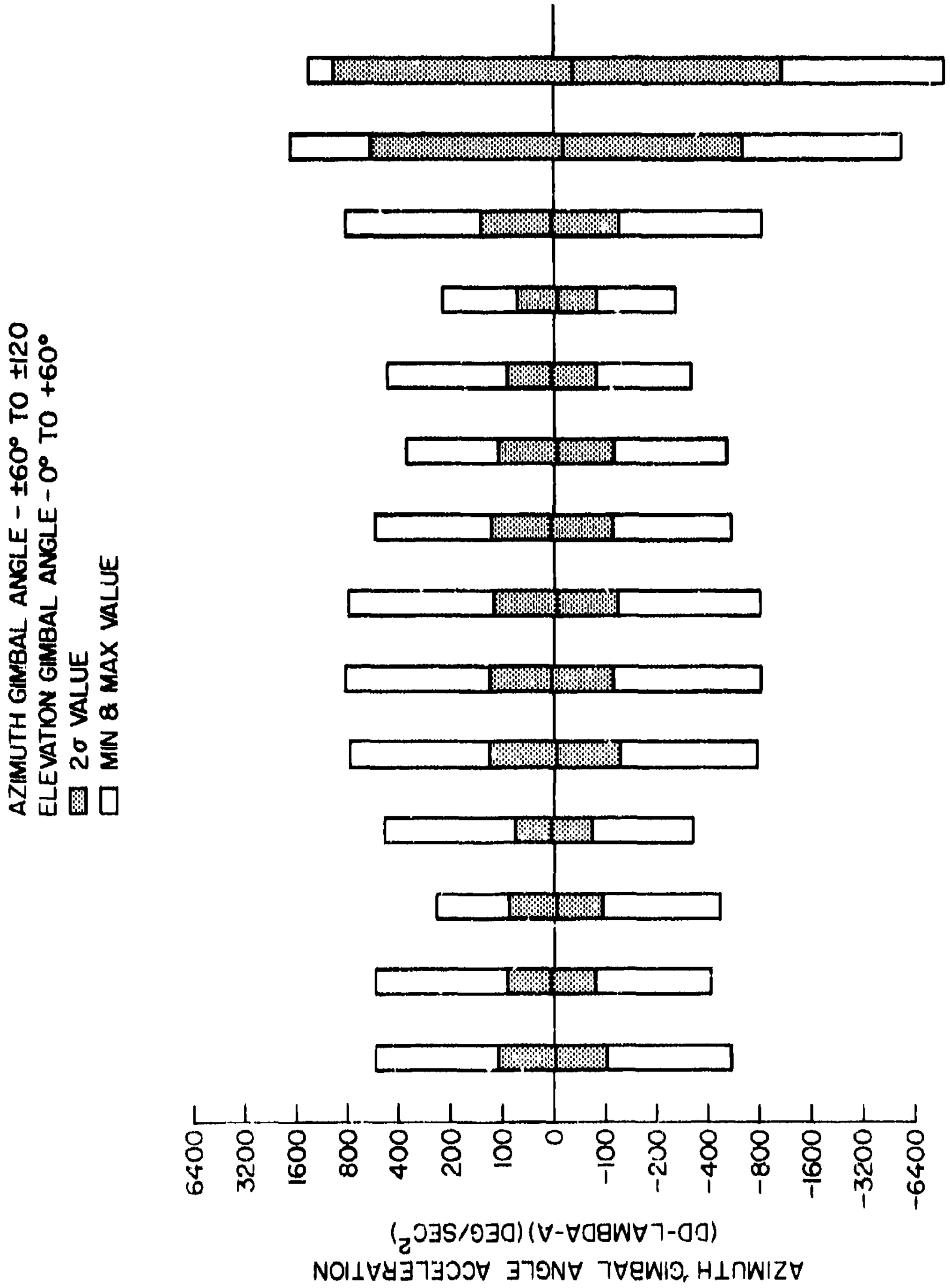
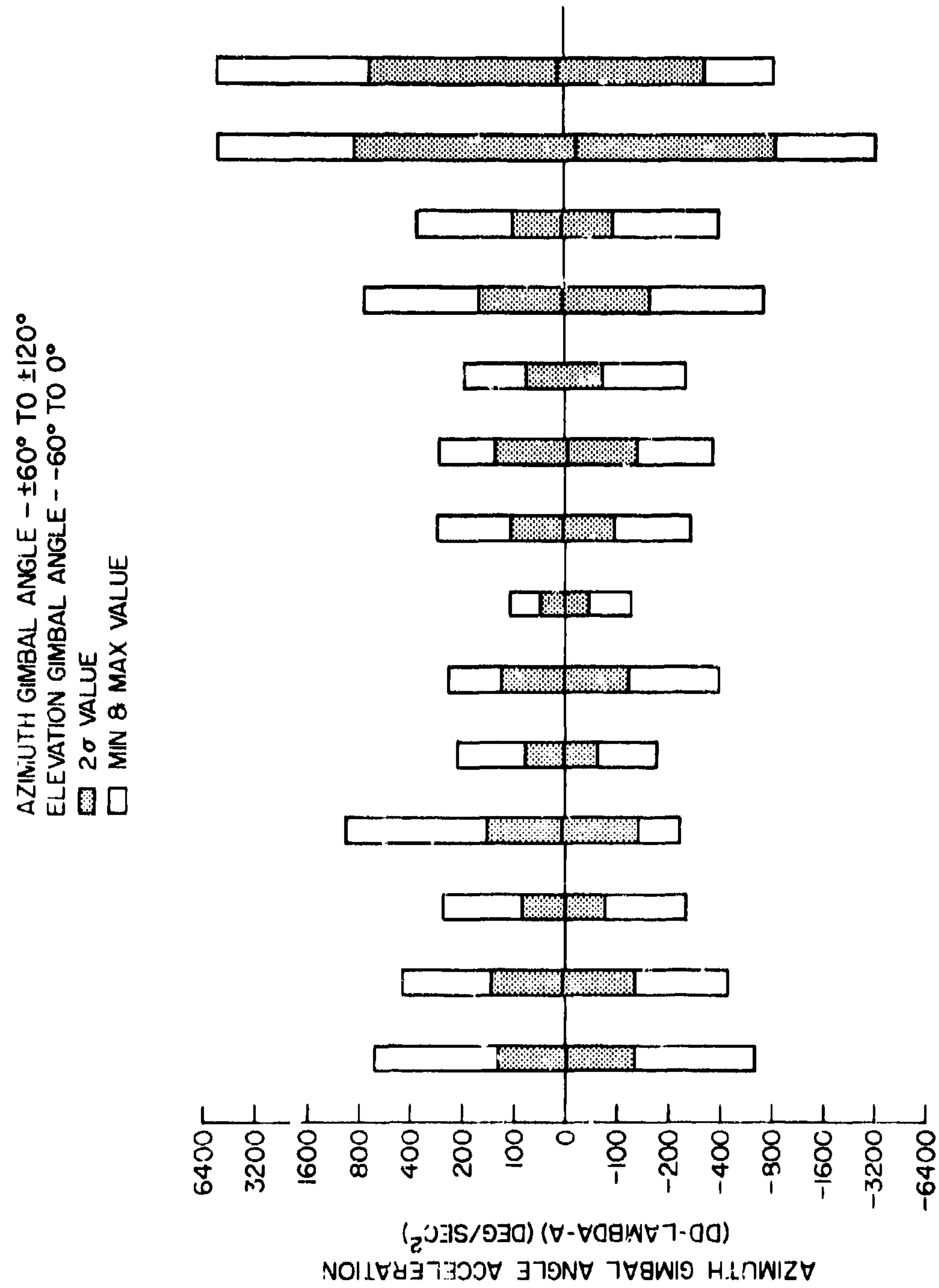


FIG. A-107–SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION



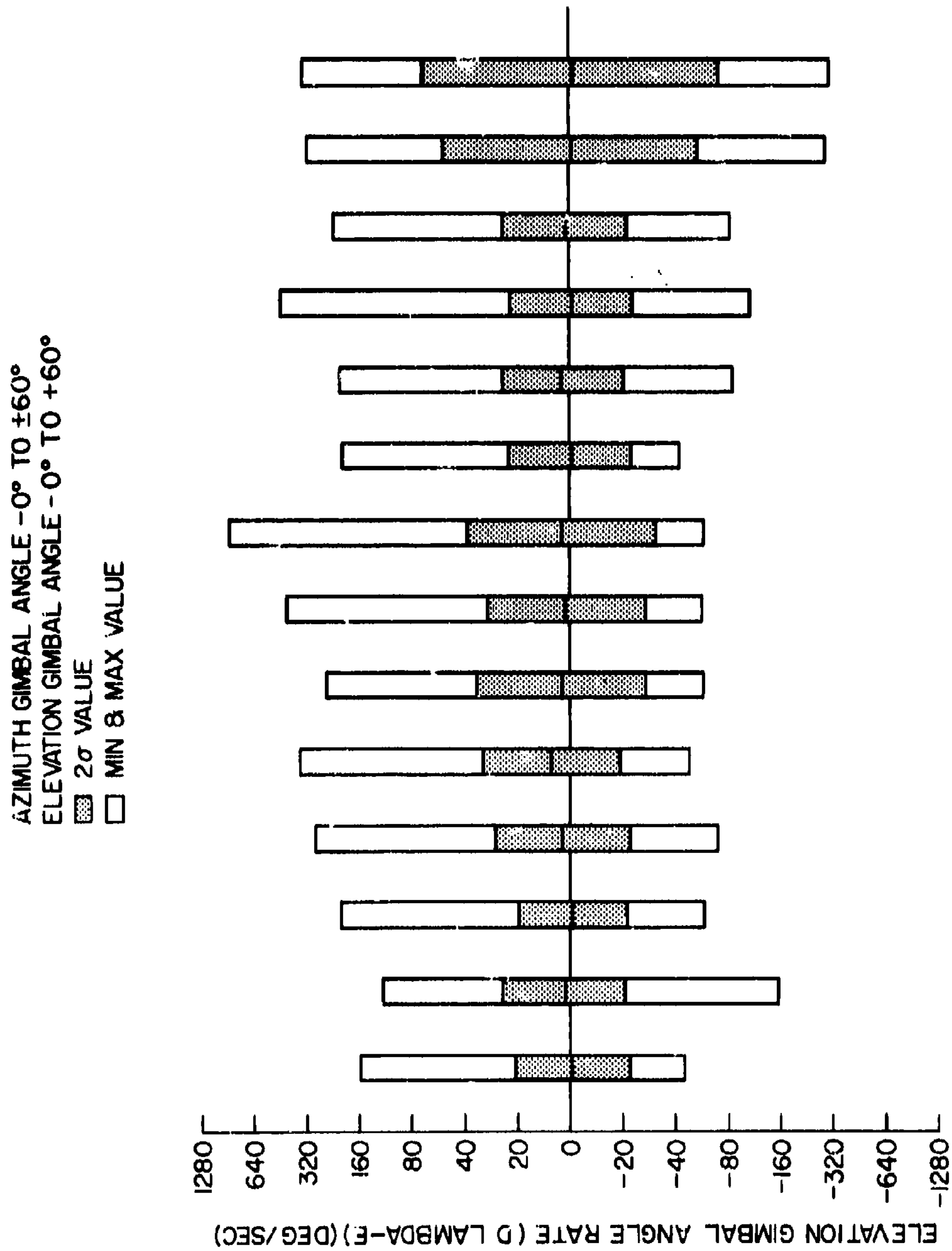
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-108-SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION



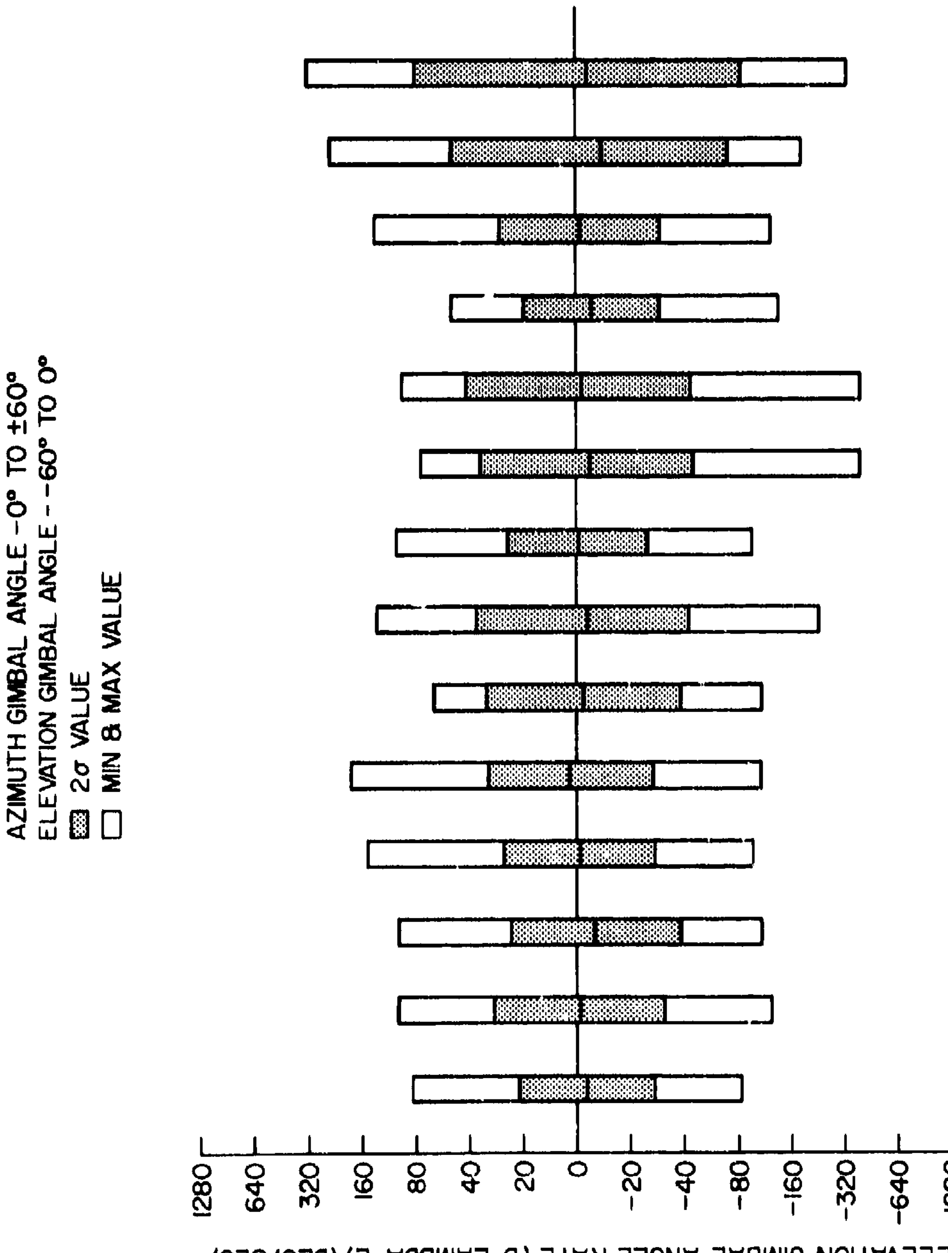
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	E	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-109-SUMMARY OF AZIMUTH GIMBAL ANGLE ACCELERATION



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-110-SUMMARY OF ELEVATION GIMBAL ANGLE RATE



CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-111-SUMMARY OF ELEVATION GIMBAL ANGLE RATE

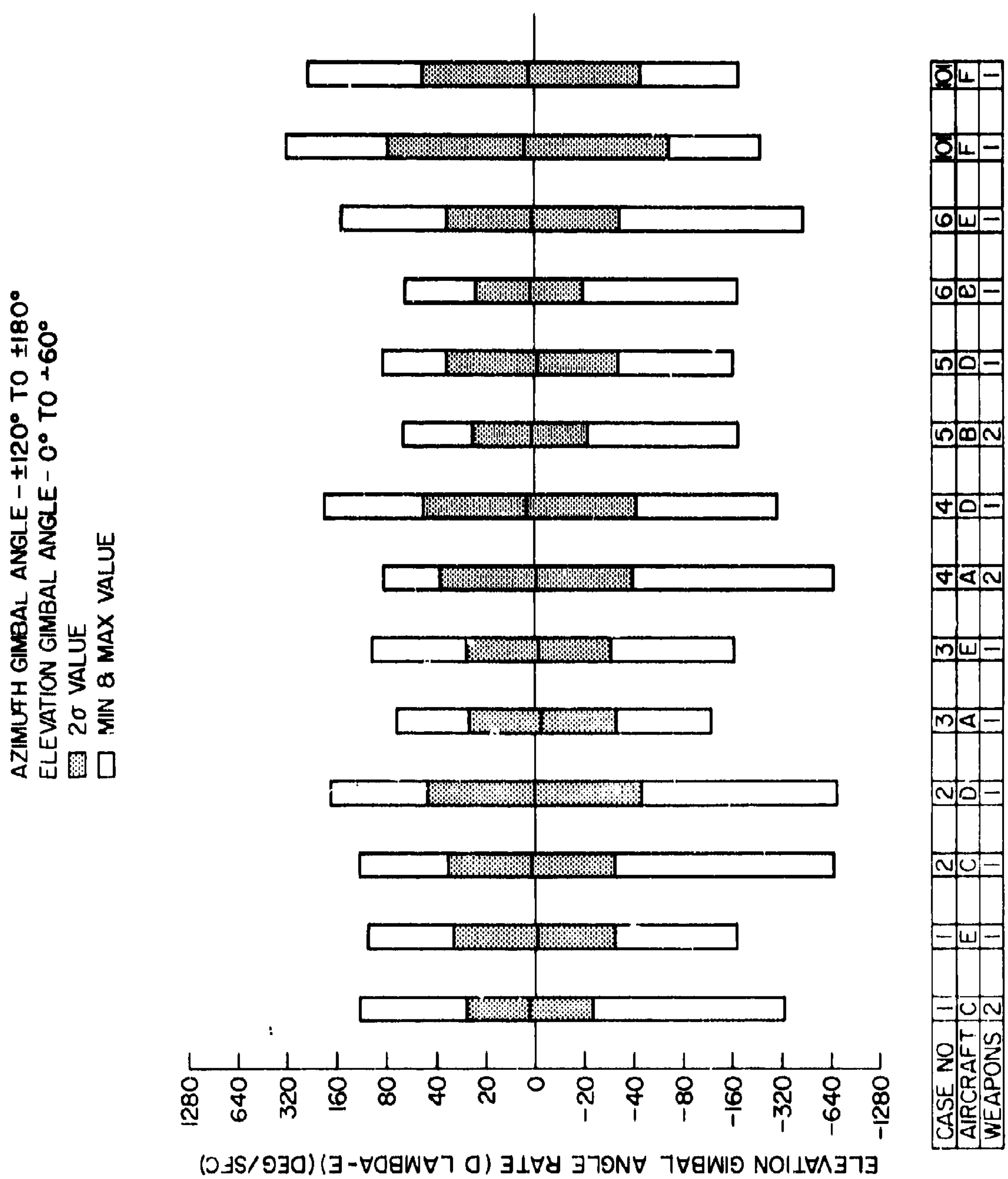


FIG. A-112-SUMMARY OF ELEVATION GIMBAL ANGLE RATE

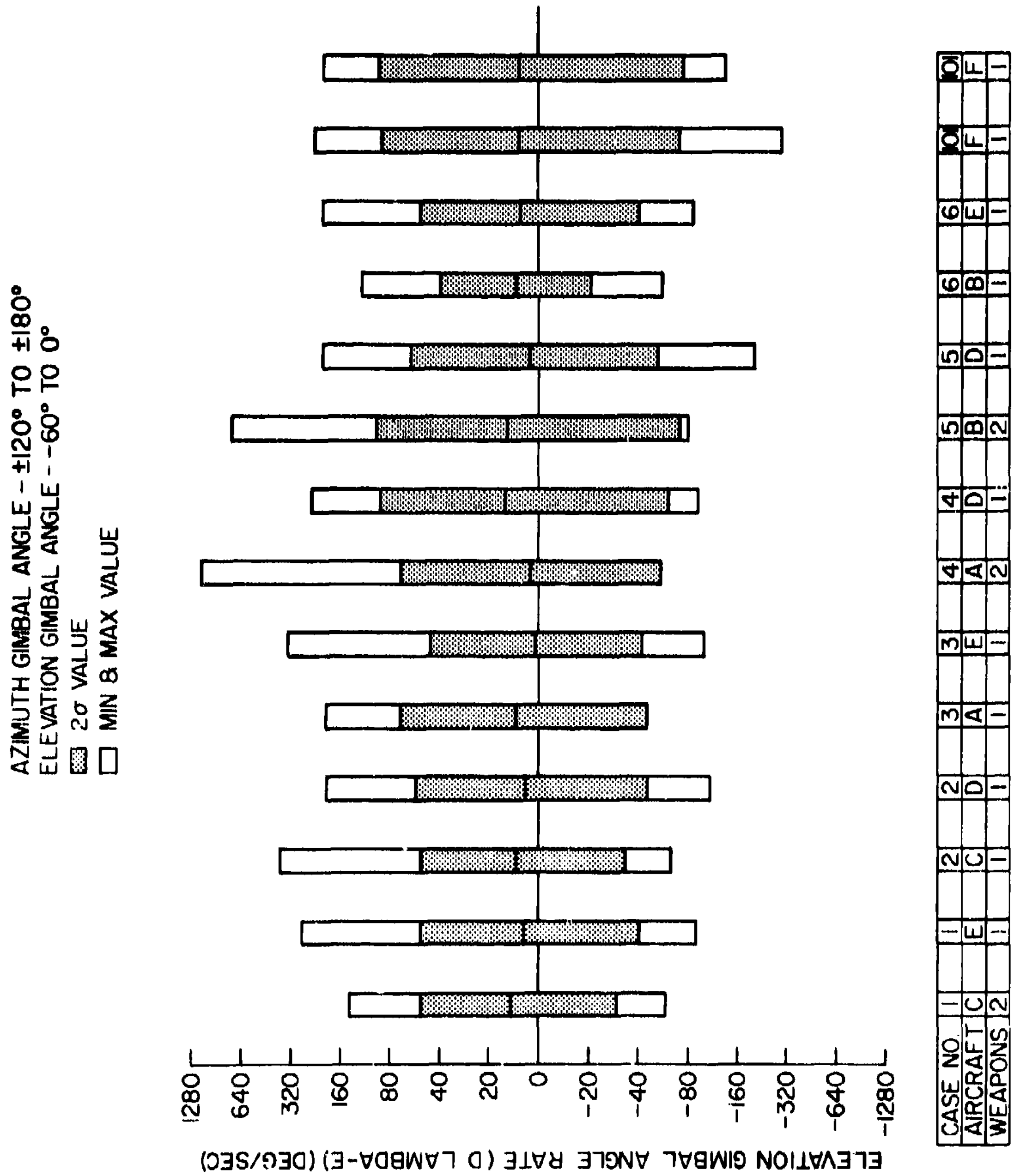
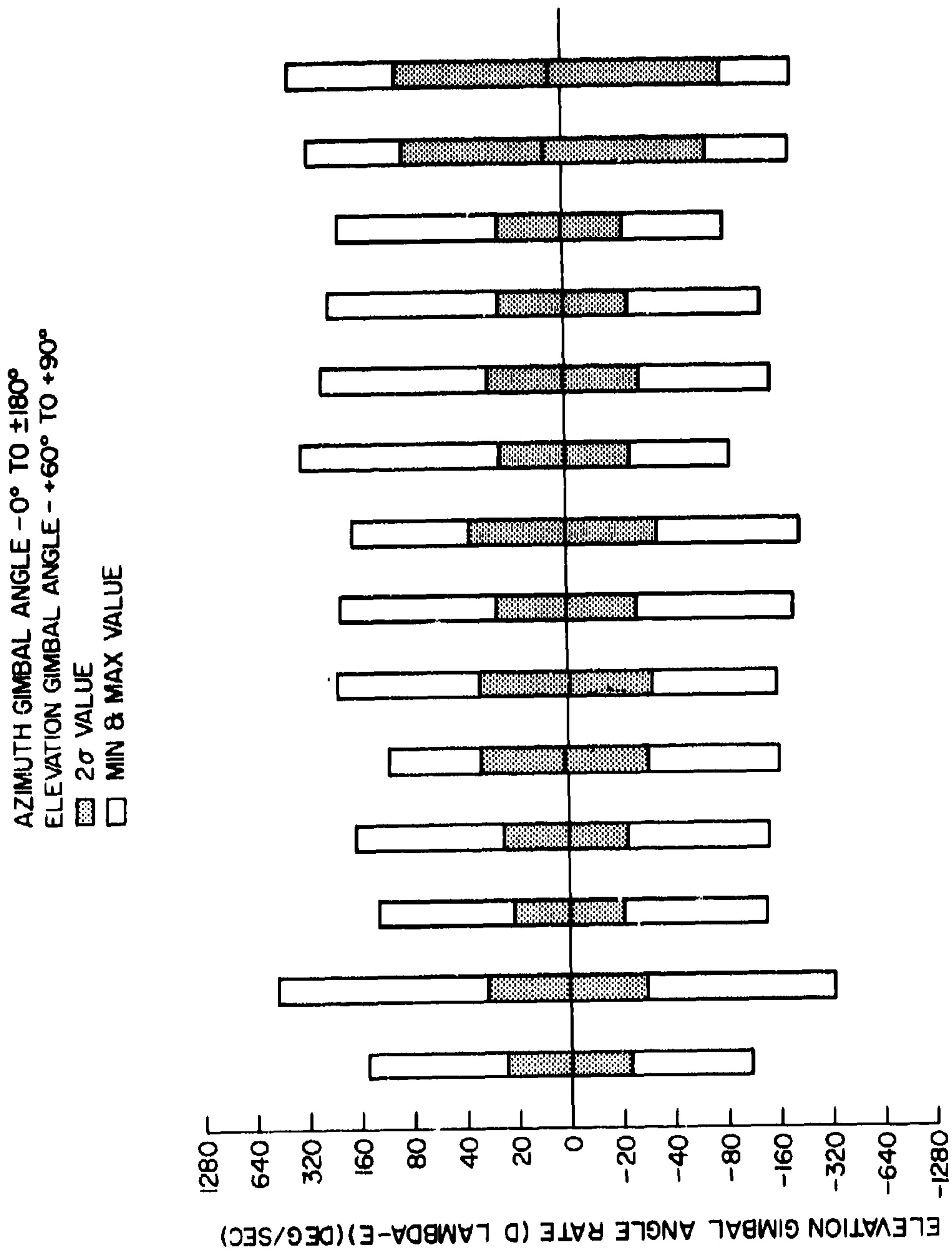
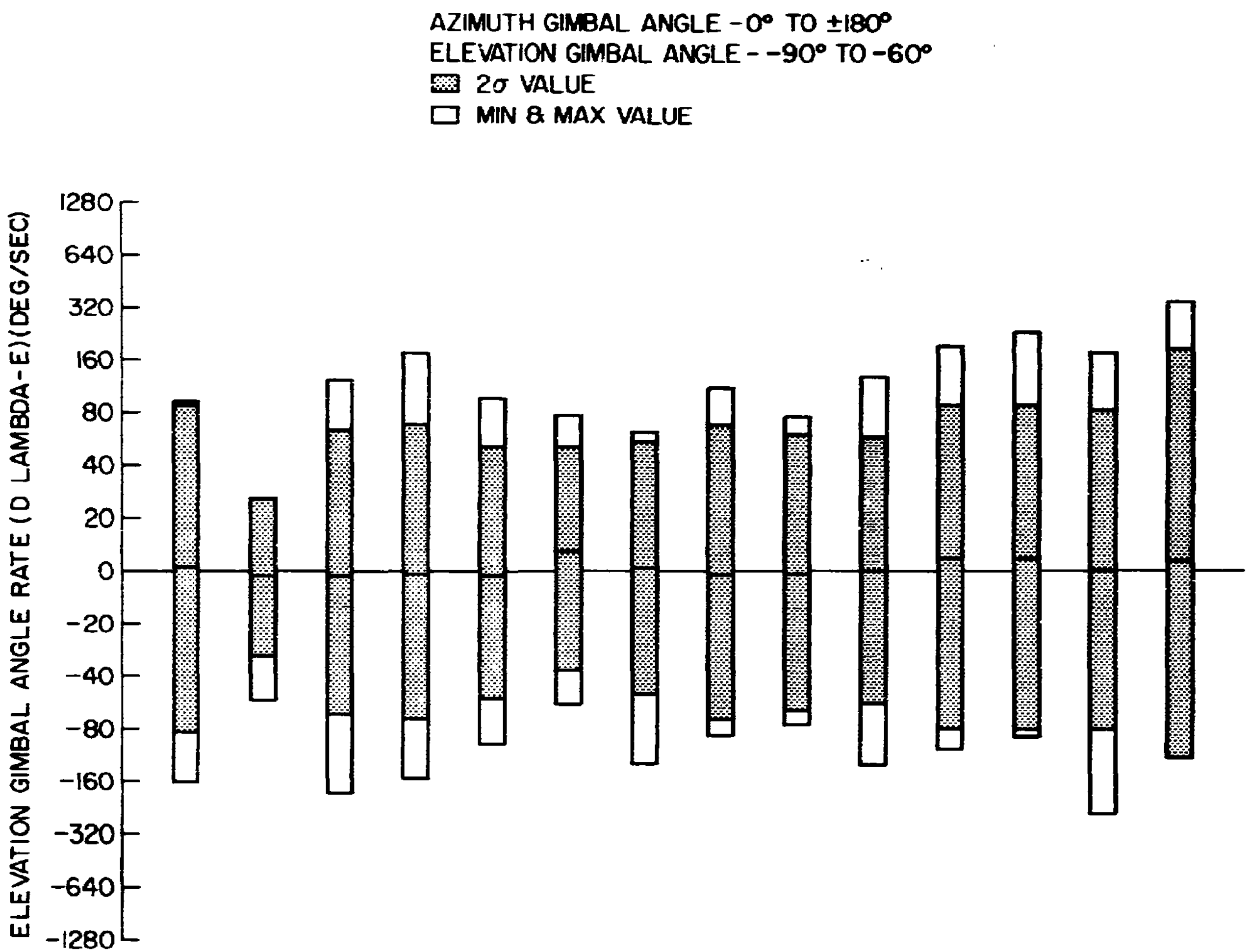


FIG. A-113-SUMMARY OF ELEVATION GIMBAL ANGLE RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-114-SUMMARY OF ELEVATION GIMBAL ANGLE RATE



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-115-SUMMARY OF ELEVATION GIMBAL ANGLE RATE

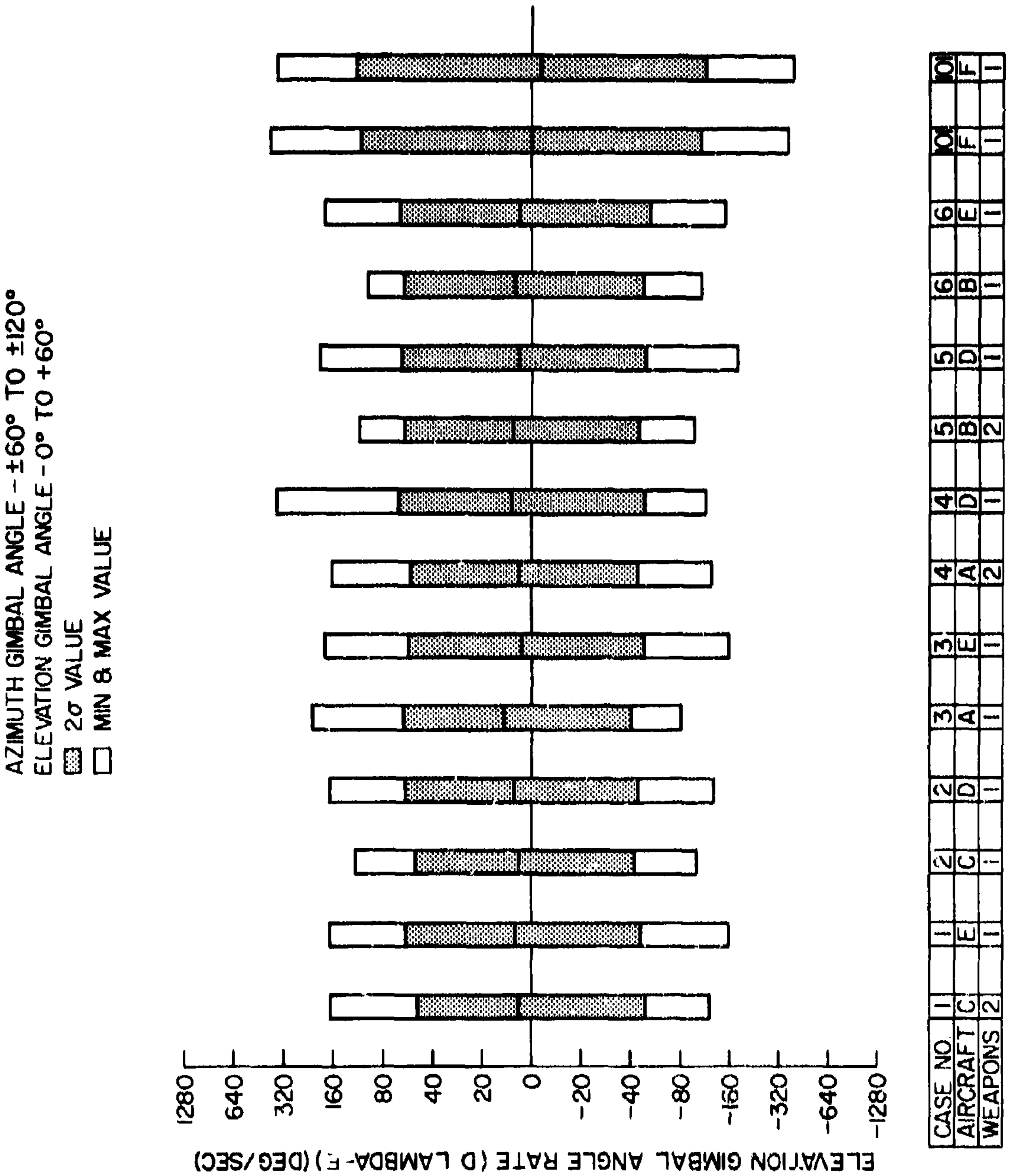
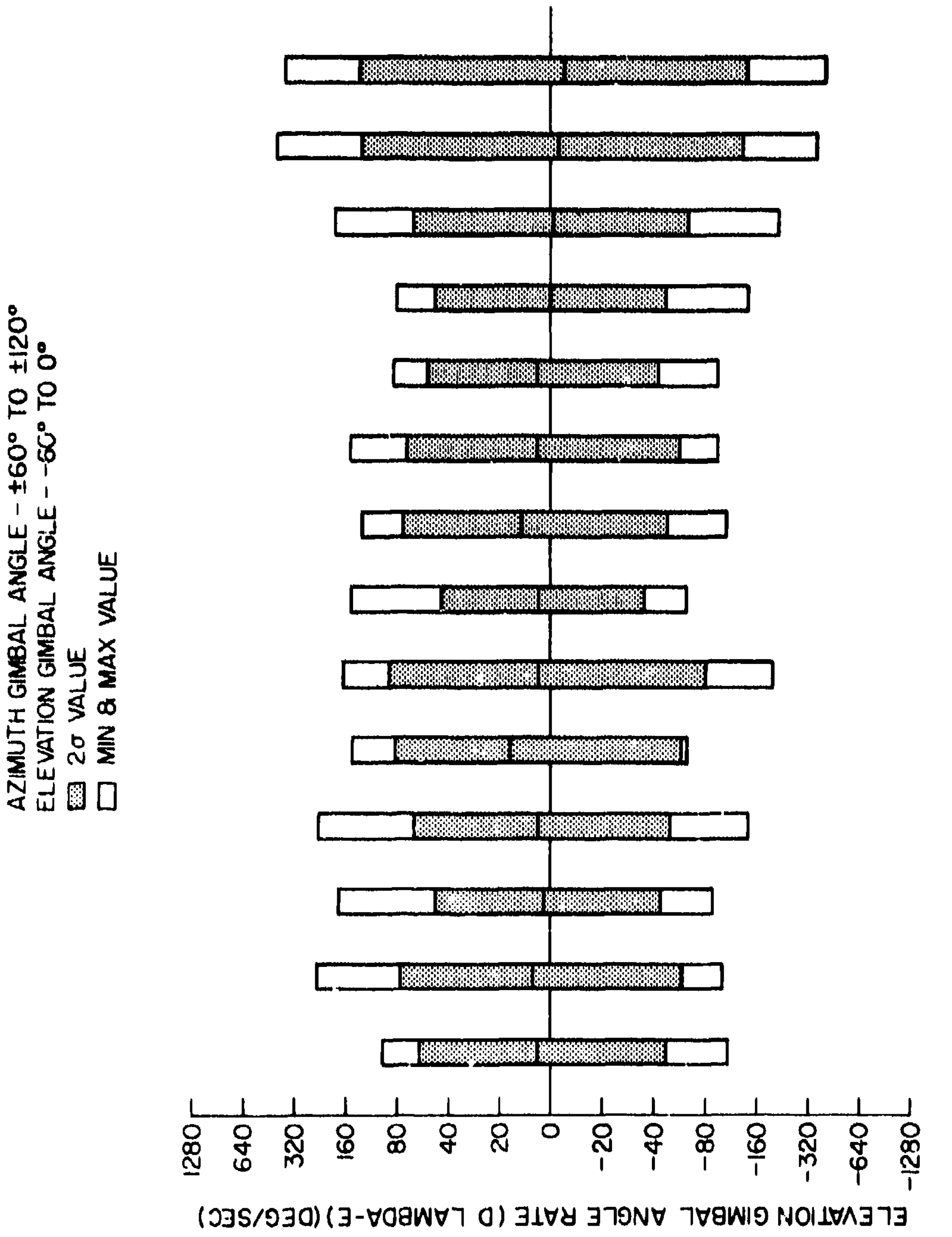
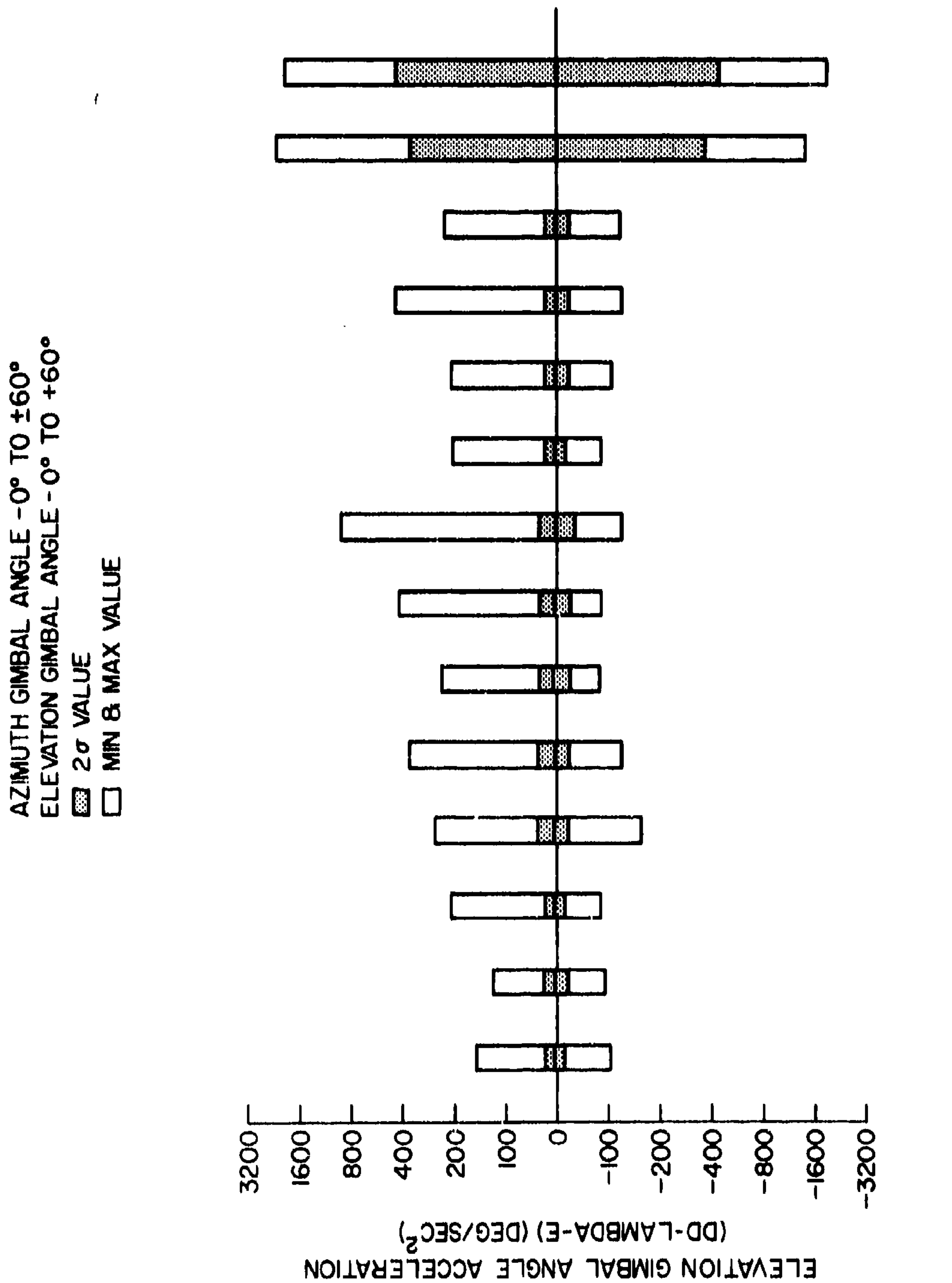


FIG.A-116–SUMMARY OF ELEVATION GIMBAL ANGLE RATE



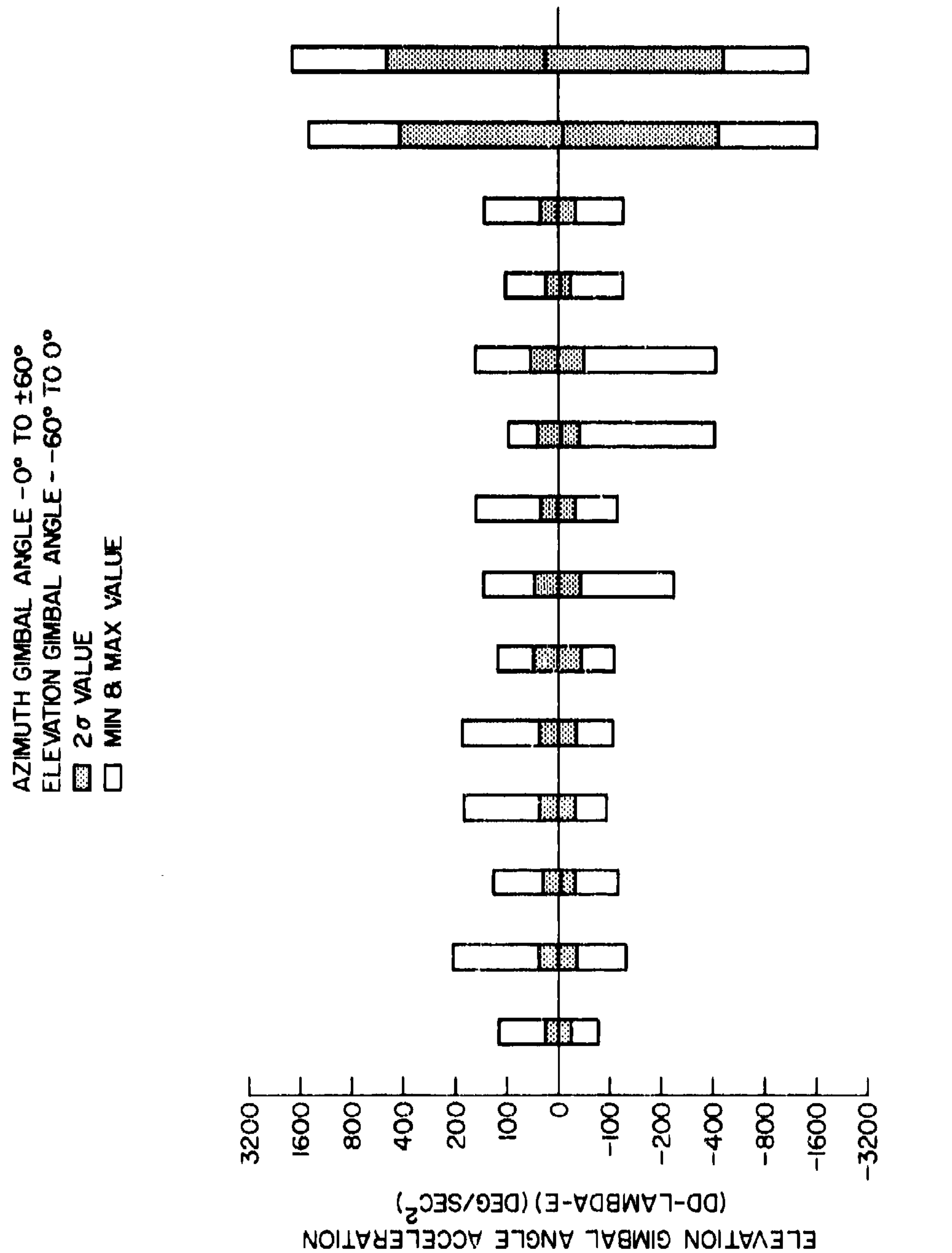
CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-117–SUMMARY OF ELEVATION GIMBAL ANGLE RATE



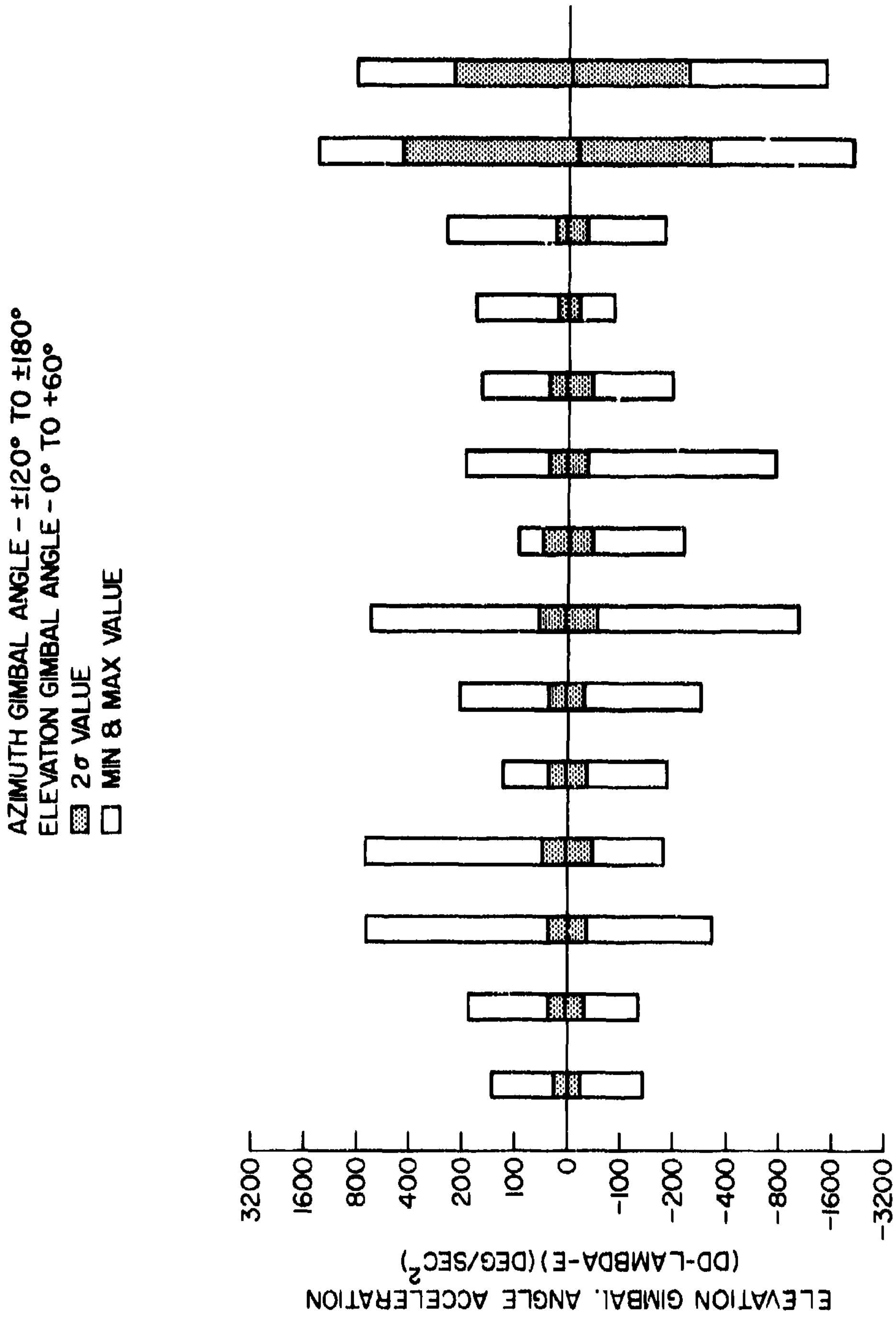
CASE NO.	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG.A-118-SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-119-SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	10	10
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-120—SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION

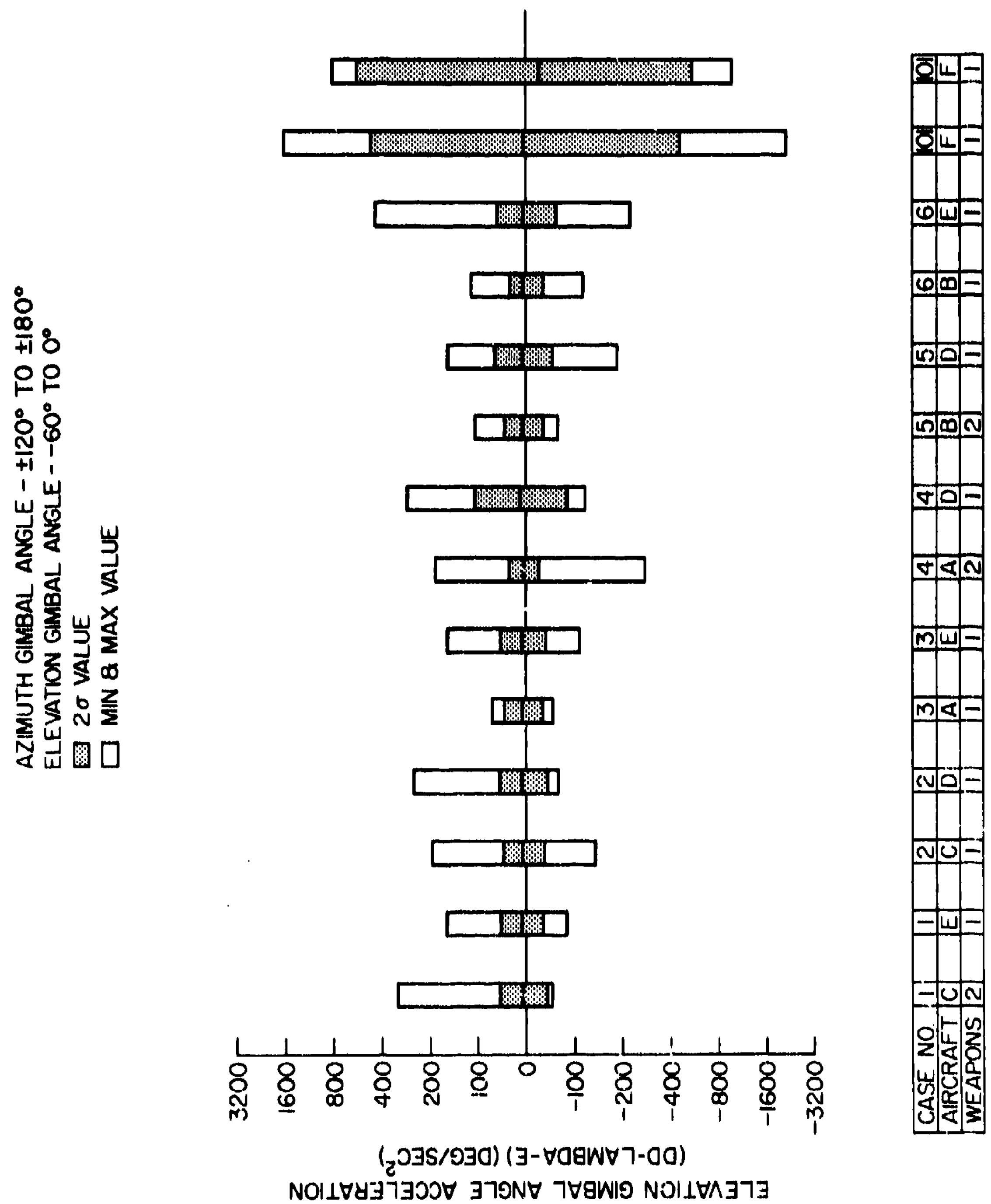


FIG. A-121-SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION

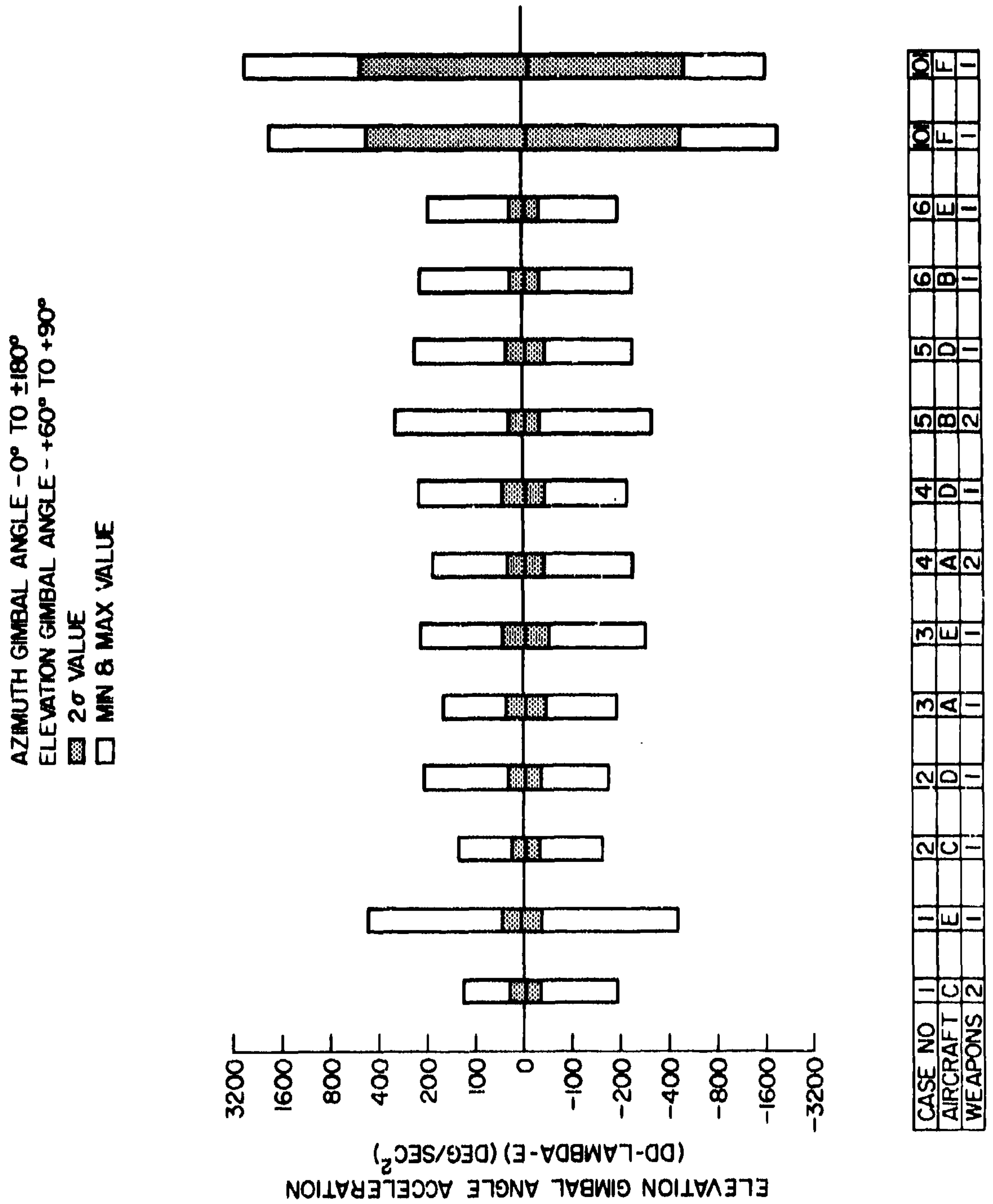
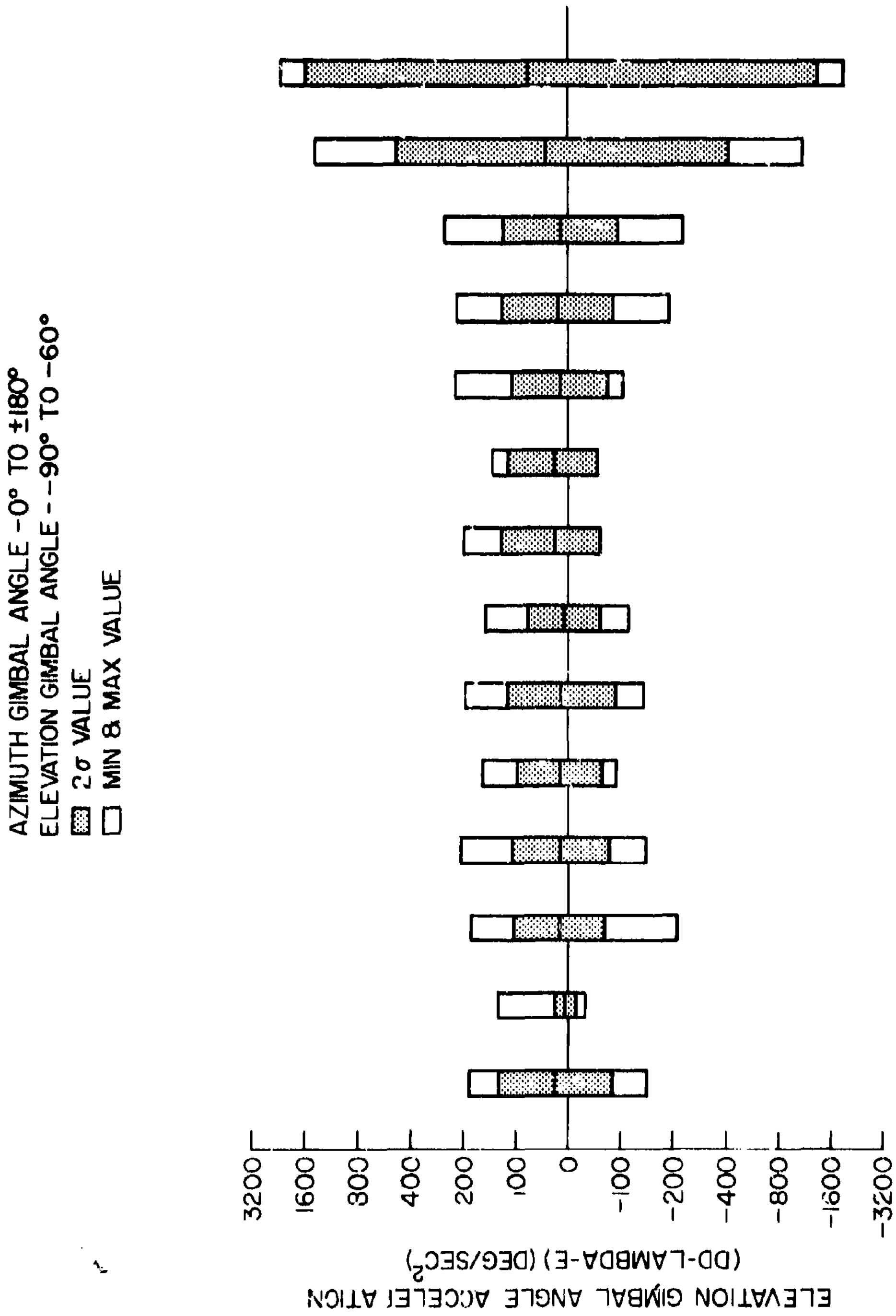


FIG. A-122-SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-123-SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION

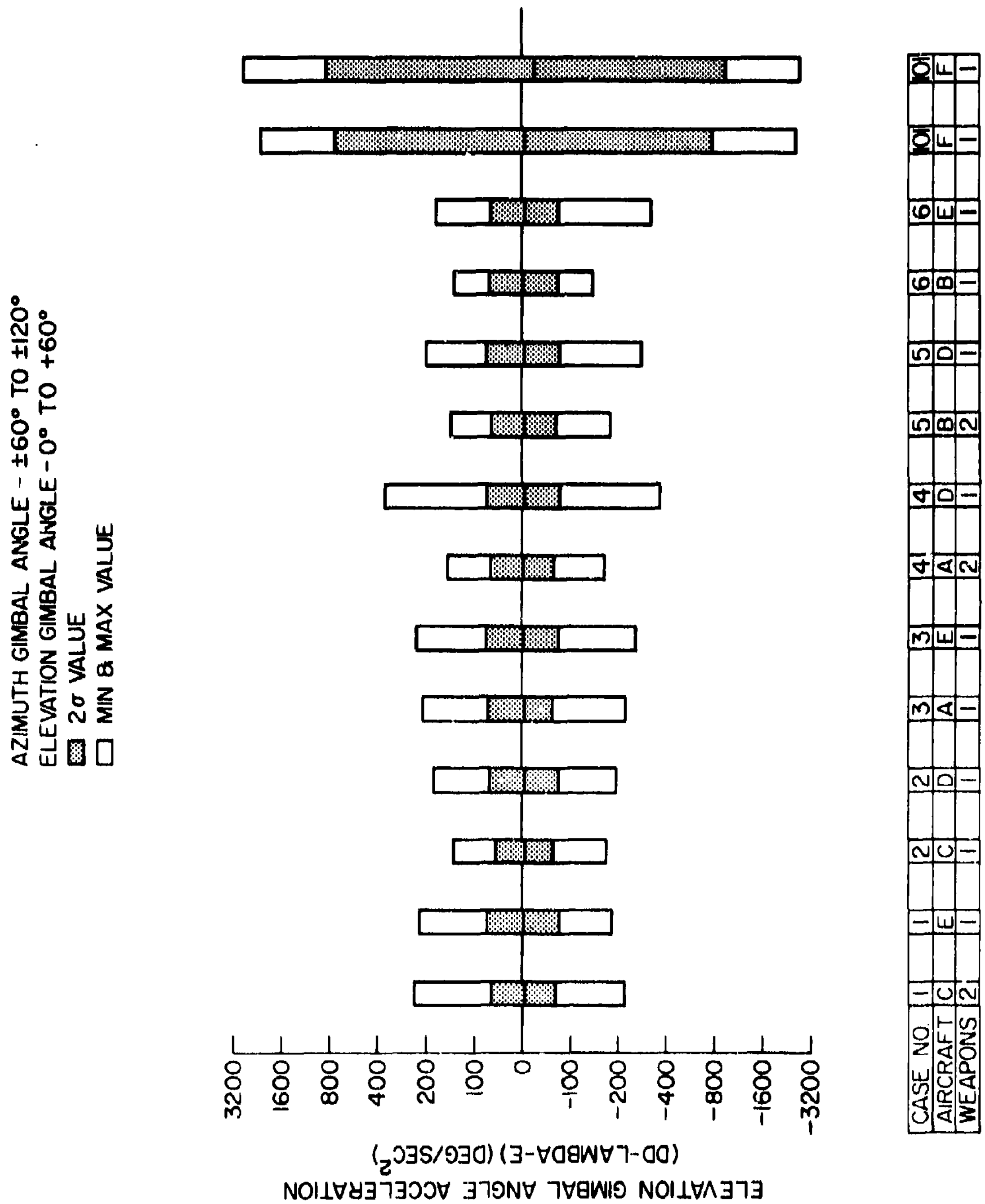
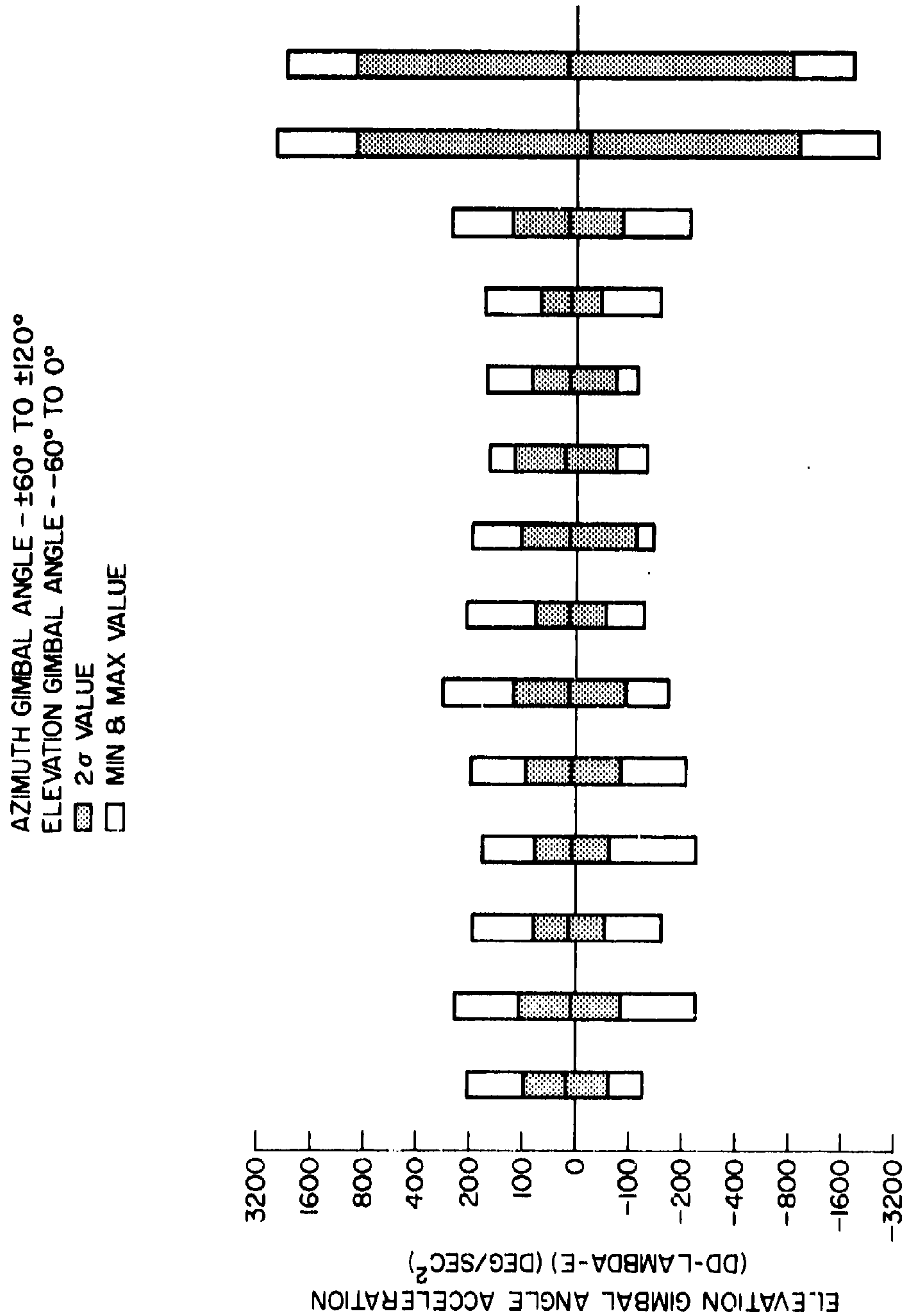


FIG. A-124-SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION



CASE NO	1	1	2	2	3	3	4	4	5	5	6	6	101	101
AIRCRAFT	C	E	C	D	A	E	A	D	B	D	B	E	F	F
WEAPONS	2	1	1	1	1	1	2	1	2	1	1	1	1	1

FIG. A-125-SUMMARY OF ELEVATION GIMBAL ANGLE ACCELERATION

B. Parameters Interaction

This program performs a numerical bivariate cumulative probability distribution. It also has the additional capability to perform, at the same time, a frequency distribution of another variable. These capabilities are quite general; however, the remainder of the options of the program are more specific. These include classifying the data into three groups according to gimbal angle or restricting the data to a minimum range.

An important facet of the program is its capability to study the distribution of dwell times. For instance, the probability distribution gives the likelihood that a particular value of a variable is exceeded but it is also necessary to know for how long the value of the parameter is exceeded. To this end, the program gives the average dwell times and their standard deviations.

Following is a glossary of terms used in work completed with Program Inact. Additional details on the program: logic, inputs, and flow charts, are available.

ABS VC - Absolute value of the closing velocity.

ARDDOT - Absolute value of the range acceleration.

A VCBT - Absolute value of the target's contribution to the closing velocity.

AWJDF - Absolute value of the elevation stabilized line of sight acceleration.

AWJF - Absolute value of the elevation stabilized line of sight rate.

AWKDF - Absolute value of the azimuth stabilized line of sight acceleration.

AWKF - Absolute value of the azimuth stabilized line of sight rate.

DELTAR - Range to closest main beam ground return (given a 2.5^{o} half beam width), minus the target range.

LAMB-T - Off-boresight angle of the target (total target aspect angle).

LT-DOT - Total rate of rotation of the target = $(\dot{\lambda}_E^{\,2} + \dot{\lambda}_A^{\,2} \cos^2 \lambda_E)^{\frac{1}{2}}$ where λ_E = elevation gimbal angle, $\dot{\lambda}_A$ = azimuth gimbal angle rate $\dot{\lambda}_E$ = elevation gimbal angle rate.

RANGE - Range from fighter to target

R-DOT - Range rate

R-H - Absolute value of range minus fighter altitude

(U) Using the following table as an example, an explanation of how to interpret the tables in Appendix B is given below:

a. The top line identifies this interaction as one that is restricted to the zone off the nose of the fighter.

b. The second line identifies the restrictions on the data as a minimum range of 225 ft and the off nose interaction is defined by $\pm$ 60° in azimuth and elevation.

c. The third line identifies the parameters interacted. (refer to the glossary in Appendix B). In this case the Y parameter (listed down the page) is designated ABS VC which is absolute value of the closing velocity, and the X parameter (listed across the page) is designated A WJDF which is the absolute value of the elevation line of sight acceleration.

d. In this case, the Y parameter is collected such that the absolute value of the closing velocity is less than 25, 50, ..., 250 ft/sec as shown in the first column on the left. The LIMIT is all values of the closing velocity less than infinity (unrestricted Y parameter). These restrictions on the Y parameter hold for the entire row.

e. In this case, the X-parameter is collected such that the absolute value of the elevation line of sight acceleration is greater than 50, 40.5, ..., .5°/sec^2 as indicated at the top of each column. The LIMIT in this case is all values of the X parameter greater than zero (unrestricted X parameters). These restrictions on the X parameter hold for all numbers in each column.

f. Each block within the table contains four numbers:

i. NO. = number of entries into the zone defined by the X and Y parameters.
ii. PCT. = percent of the total combat time the conditions of the X and Y parameters were met.
iii. DT. = average dwell time in seconds that the conditions of the X and Y were met.
iv. STD. = standard deviation of the dwell time in seconds that the conditions of the X and Y parameters were met.

g. As an example, take the X parameter value as 8.00 and the Y parameter value as 200.00. Referring to the intersection of these two values, it can be seen that for the absolute value of the elevation line of sight acceleration greater than 8°/sec^2 and the absolute value of the closing velocity less than 200 ft/sec^2 the results are:

TABLE 1

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA= 60,00

Y PARAMETER ABS VC X PARAMETER A WJDF

TAPE NO. 1

		90,00	40,50	36,00	24,50	18,00	12,50	8,00	4,50	2,00	0,50	LIMIT
25,00	NE,	1	1	1	1	1	1	3	8	12	25	52
	PCT,	0,01	0,01	0,01	0,01	0,01	0,01	0,02	0,07	0,12	0,23	0,65
	DT,	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,13	1,25	1,16	1,58
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,33	0,43	0,37	1,55
												2,70 AVG
50,00	NE,	1	1	1	2	4	4	9	17	25	52	90
	PCT,	0,01	0,01	0,01	0,02	0,03	0,03	0,09	0,17	0,27	0,51	1,21
	DT,	1,00	1,00	1,00	1,00	1,00	1,00	1,22	1,24	1,36	1,23	1,68
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,63	0,55	0,62	0,50	1,79
												2,72 AVG
75,00	NE,	2	2	2	4	6	7	12	21	34	72	112
	PCT,	0,32	0,02	0,02	0,03	0,05	0,06	0,11	0,20	0,34	0,77	1,77
	DT,	1,00	1,00	1,00	1,00	1,00	1,00	1,17	1,19	1,26	1,33	1,98
	STD,	0,00	0,0C	0,00	0,00	0,00	0,00	0,55	0,50	0,56	0,62	2,92
												2,64 AVG
100,00	NE,	2	2	2	5	8	10	15	27	44	93	140
	PCT,	0,02	0,02	0,02	0,04	0,06	0,08	0,14	0,26	0,44	1,05	2,34
	DT,	1,00	1,00	1,00	1,00	1,00	1,00	1,20	1,22	1,25	1,41	2,09
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,54	0,63	0,64	0,82	2,91
												2,48 AVG
125,00	NE,	2	2	2	5	8	10	17	29	53	109	162
	PCT,	0,02	0,02	0,02	0,04	0,06	0,08	0,16	0,26	0,56	1,32	2,91
	DT,	1,00	1,00	1,00	1,00	1,00	1,00	1,18	1,21	1,32	1,52	2,25
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,51	0,61	0,82	0,97	2,92
												2,22 AVG
150,00	NE,	2	2	2	5	8	10	20	34	58	129	189
	PCT,	0,02	0,02	0,02	0,04	0,06	0,08	0,18	0,33	0,65	1,68	3,65
	DT,	1,00	1,00	1,00	1,00	1,00	1,00	1,15	1,21	1,41	1,64	2,42
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,48	0,58	0,85	1,00	2,93
												2,00 AVG
175,00	NE,	2	3	3	6	10	14	25	43	75	155	219
	PCT,	0,02	0,02	0,02	0,05	0,08	0,11	0,22	0,42	0,81	2,02	4,29
	DT,	1,00	1,00	1,00	1,00	1,00	1,00	1,12	1,23	1,36	1,63	2,45
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,43	0,71	0,86	1,02	3,81
												2,87 AVG
200,00	NE,	2	3	3	7	11	14	26	48	88	182	258
	PCT,	0,02	0,02	0,02	0,06	0,09	0,12	0,24	0,47	0,93	2,35	5,07
	DT,	1,00	1,00	1,00	1,00	1,00	1,07	1,15	1,23	1,33	1,62	2,46
	STD,	0,00	0,00	0,00	0,00	0,00	0,26	0,46	0,68	0,84	1,07	3,69
												1,95 AVG
225,00	NE,	2	3	3	7	12	15	28	53	98	195	275
	PCT,	0,02	0,02	0,02	0,06	0,10	0,13	0,26	0,53	1,09	2,71	5,83
	DT,	1,00	1,00	1,00	1,00	1,00	1,07	1,14	1,26	1,40	1,74	2,66
	STD,	0,00	0,00	0,00	0,00	0,00	0,25	0,44	0,68	0,90	1,20	3,91
												1,87 AVG
250,00	NE,	2	3	3	8	13	16	30	56	109	222	314
	PCT,	0,02	0,02	0,02	0,06	0,10	0,14	0,27	0,56	1,21	3,06	6,74
	DT,	1,00	1,00	1,00	1,00	1,00	1,06	1,13	1,25	1,39	1,73	2,69
	STD,	0,00	0,00	0,00	0,C0	0,00	0,24	0,43	0,66	0,89	1,24	3,80
												1,77 AVG
LIMIT	NE,	17	26	35	75	122	192	283	401	571	833	445
	PCT,	0,14	0,21	0,28	0,60	1,04	1,76	2,99	5,45	10,22	23,83	43,77
	DT,	1,00	1,00	1,00	1,00	1,07	1,15	1,33	1,70	2,24	3,58	12,33
	STD,	0,00	0,00	0,00	0,00	0,25	0,40	0,58	0,99	1,67	3,12	9,71
												2,38 AVG
	AVG,	576,91	635,46	471,93	701,10	724,52	739,05	722,89	684,58	678,55	662,49	618,00

i. number of entrance into this condition is 26

ii. the percent of the total combat time this occurred is 0.24%

iii. the average duration of this occurrence is 1.15 seconds

iv. the standard deviation of this duration is 0.46 seconds

h. The average values listed with the LIMIT cases denote the average values of the unlimited parameter while the other parameter is limited. As an example, the case where the Y parameter is less than 100 ft/sec. Going across the row to the case unlimited by the Y parameter, it is seen that the average X parameter is $2.48^{\circ}/sec^2$.

i. The bottom, right hand, corner block is noteworthy. This is the case where neither the X nor Y parameters are limited. Thus the only restrictions on these data are the initial conditions, in this case a minimum range of 225 ft and $\pm 60^{\circ}$ in azimuth and elevation.

2. <u>Tracking Parameter Interaction</u>

(U) The purpose of this section is to discuss the results of the tracking parameter interactions for the forward $\pm 60^{\circ}$ field of view and for the total sphere coverage. The data for the graphs used in this section are contained in Tables B1 to B79 in Appendix B. The tabulated data contains a quantity and quality of information not possible to include on the graphs. The detailed explanation of the use of the graphs is contained in a preceding section of this report.

(U) When interpreting the graphs for the interaction study (Figs. B-1 to B-57) it becomes obvious that several different sets of values of the interacted parameters produce the same probability of track with nearly the same average dwell time in track. When a limit is imposed on one parameter, only one value of the other parameter corresponds to a particular probability of occurrence. This, in essence, is the main use of these graphs: i.e., the influence of one parameter on the other. Keeping this in mind, a tradeoff analysis between the two parameters can be made.

(U) When studying these parameter interactions, it should be kept in mind that three separate tracking loops are being investigated. The overall probability of track is the product of the three separate tracking loops. For example, a 0.95 probability in each loop yields a total of 0.86 probability of track. Further probabilities may be included such as range probability, clutter track-through probabilities, etc.

(U) The preceding calculation assumed that the three tracking loops (range, azimuth and elevation angle) are independent, that is, not influenced by one another. The parameters interacted were chosen in an attempt to study variables which were not likely to be independent, that is, not influenced by one another. The parameters interacted were chosen in an attempt to study variables which were not likely to be independent, such as range acceleration and range rate. The next logical step is to combine all the variables and determine one overall probability. This is best accomplished in a tracking model, which is planned as the next step in this study. The output of the parameter interactions will provide the logical point at which to begin in the tracking model and provides an indication of the necessary steps for further improvement of tracking capabilities required of the weapon control system in a dogfight environment.

a. (C) Range rate versus range acceleration (Fig. B-1, B-2, AI coverage; Fig. B-3 Total sphere coverage)

In the case of the AI radar, a range tracking loop with a range rate capability of ±1500 ft/sec and a range acceleration capability of ±500 ft/sec^2 would provide a 0.95 probability of range track within gimbal limits of ±60°. The average length of track is approximately 10 seconds. Figure B-2 is an expanded portion of the data in Fig. B-1 as shown by the shaded area in the upper right corner. For high probability of track considerations this is the most important region for tradeoff consideration.

b. (C) Azimuth line of sight rate versus azimuth line of sight acceleration. (Fig. B-4, B-5, AI coverage; Fig. B-6, Full sphere coverage).

In the case of the AI radar, a 25°/sec azimuth line of sight rate and a 25°/sec^2 azimuth line of sight acceleration capability provides a 0.97 probability of track while within gimbal limits. The average duration of track is 12 seconds.

(C) In the case of the full sphere coverage, the same values yields a 0.94 probability of track for an average duration of 38 seconds.

(U) In order to determine the requirements for a higher probability of track, it is necessary to refer to the data contained in the tables in this appendix.

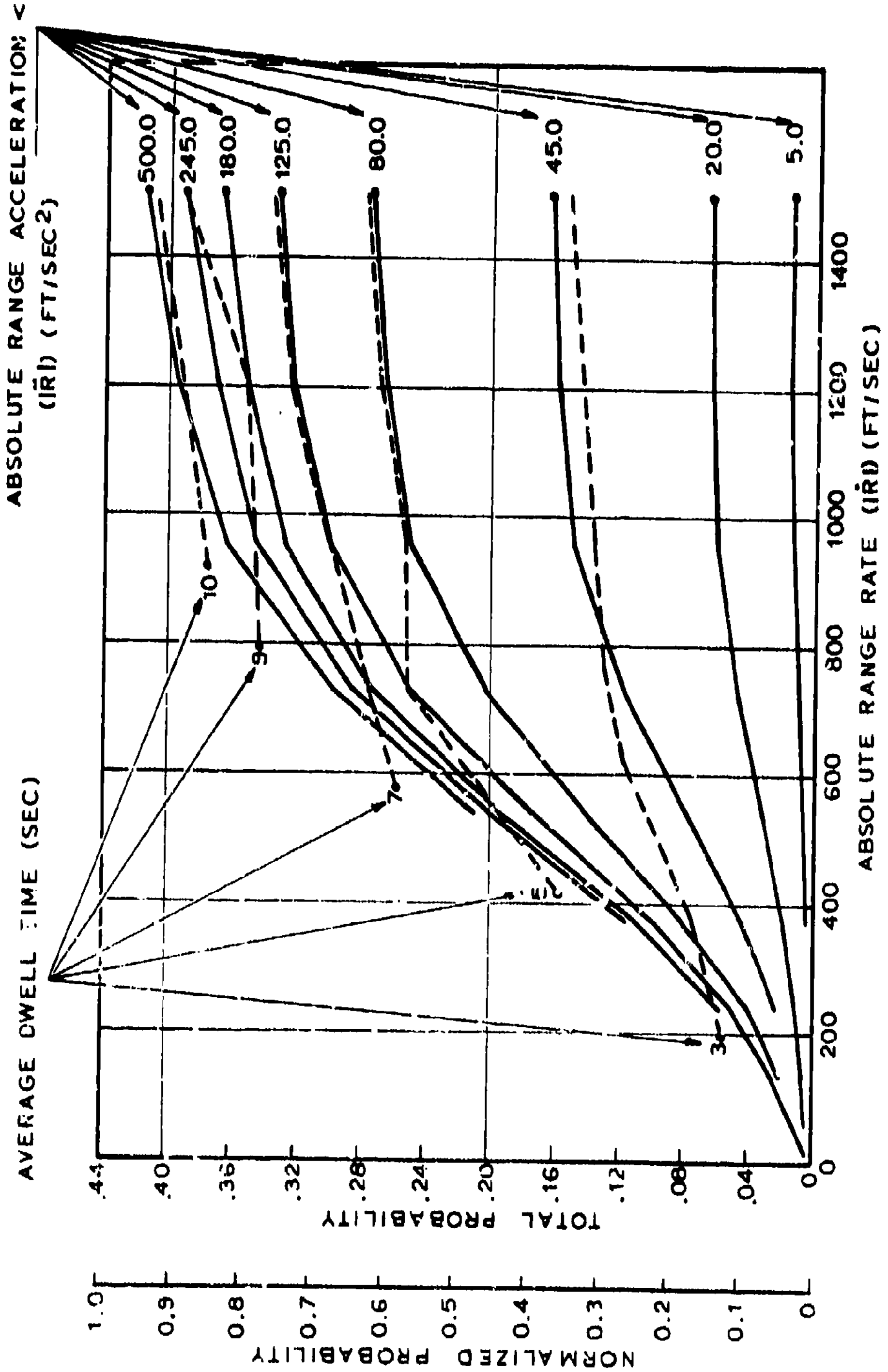


FIG. B-1 - CUMULATIVE PROBABILITY DISTRIBUTION OF ABSOLUTE RANGE RATE FOR SEVERAL ABSOLUTE RANGE ACCELERATIONS FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

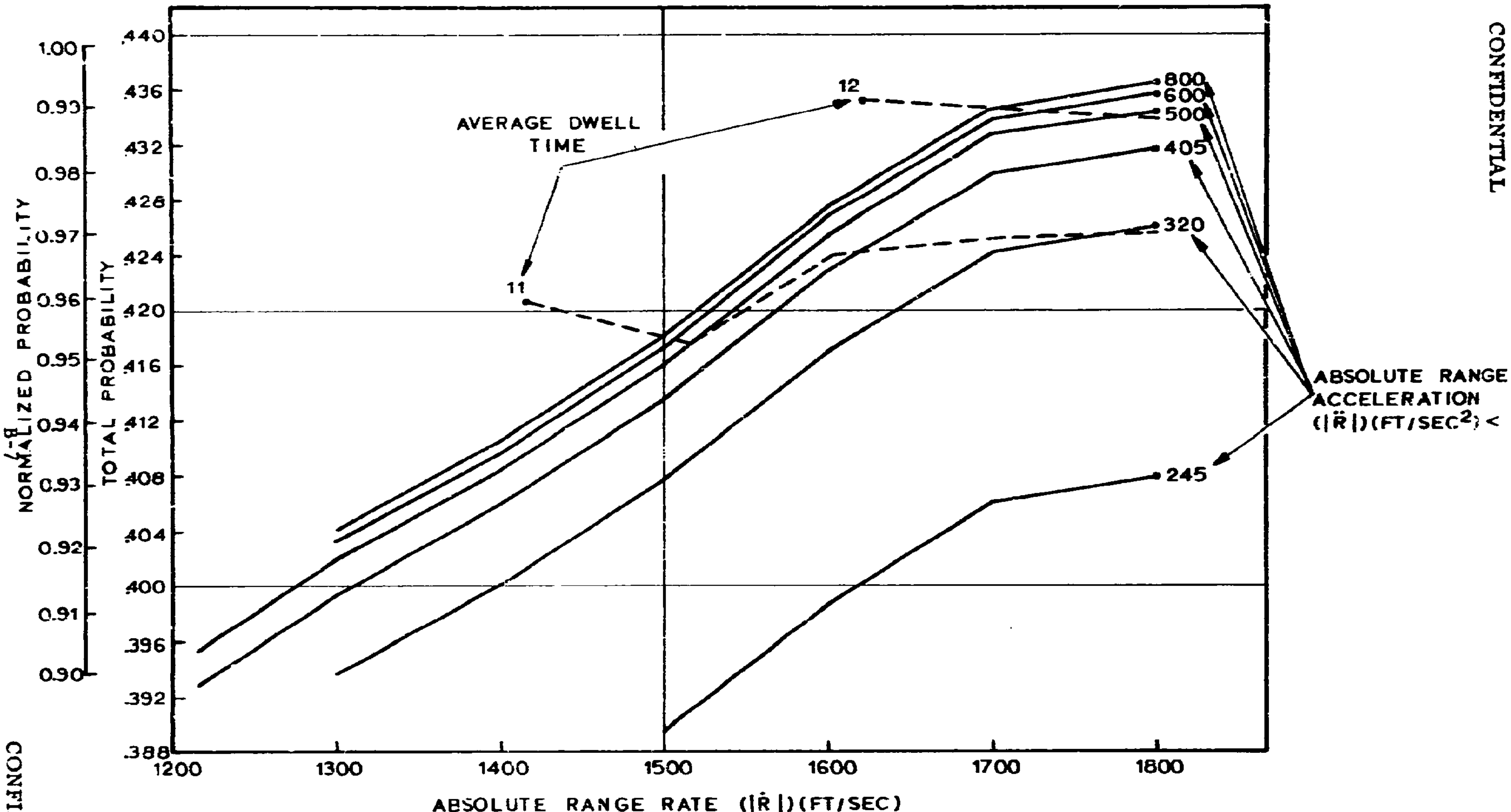


FIG. B-2 - CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE RATE FOR SEVERAL VALUES OF RANGE ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE - 225 FT

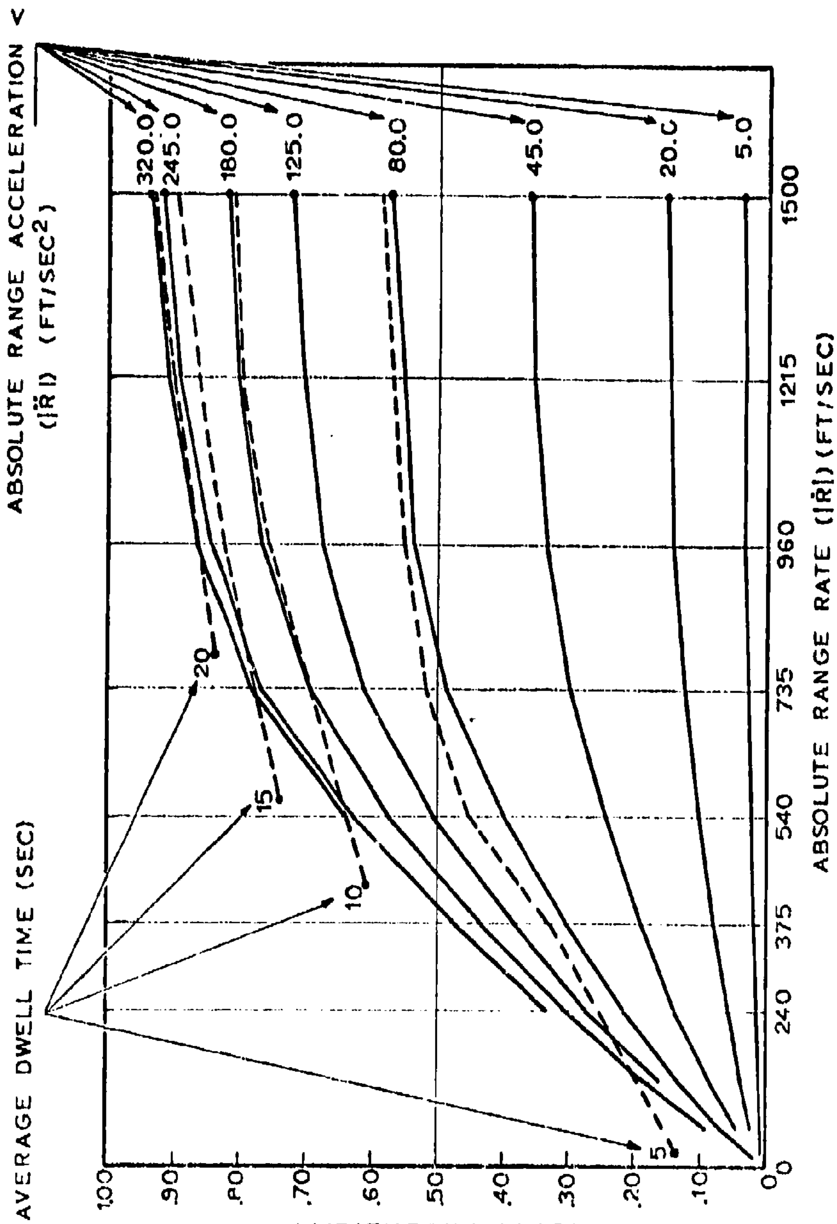


FIG.B-3 - CUMULATIVE PROBABILITY DISTRIBUTION OF ABSOLUTE RANGE RATE FOR SEVERAL ABSOLUTE RANGE ACCELERATION LIMITS FOR TOTAL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

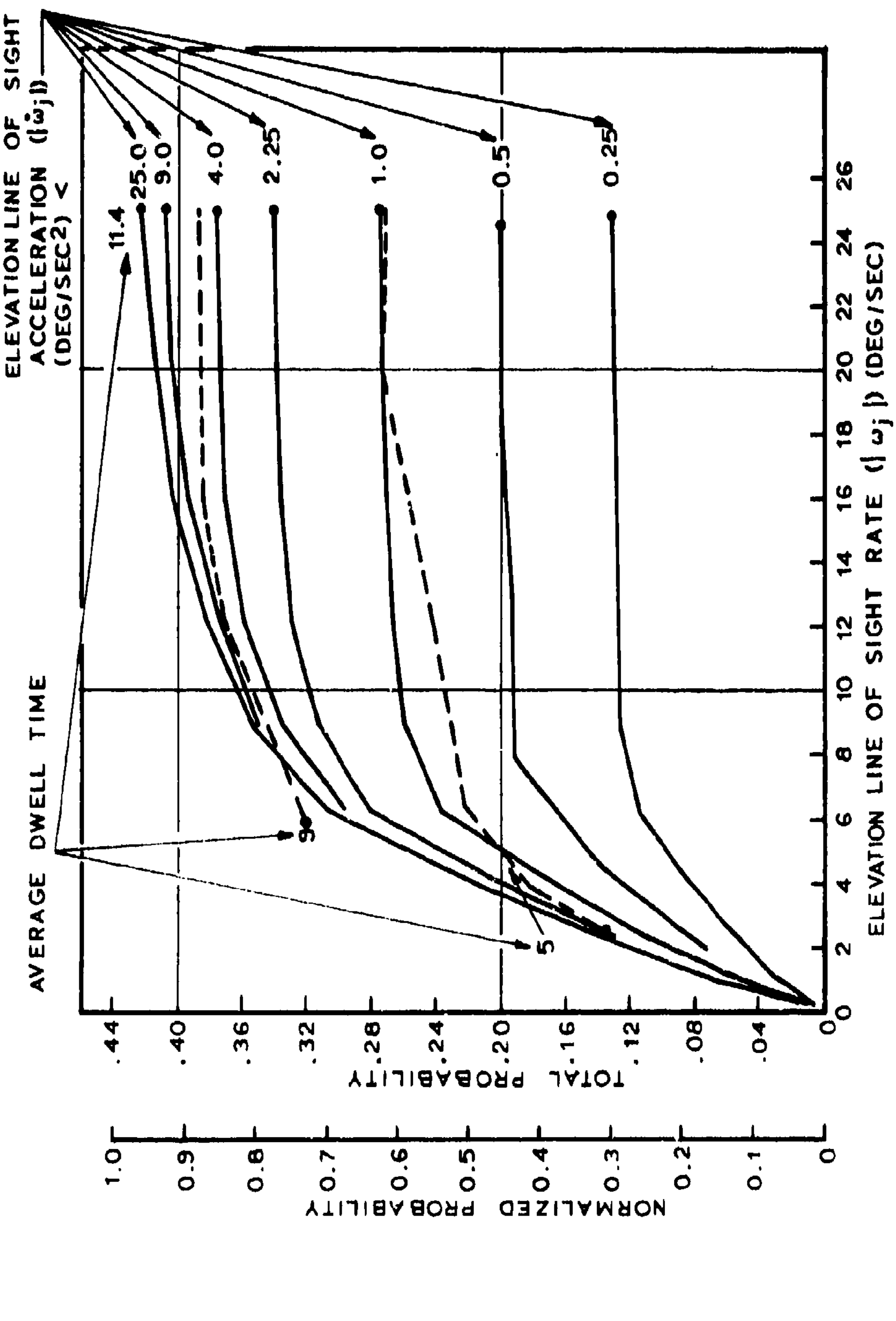


FIG. B-4 - CUMULATIVE PROBABILITY DISTRIBUTION OF ELEVATION LINE OF SIGHT RATE FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

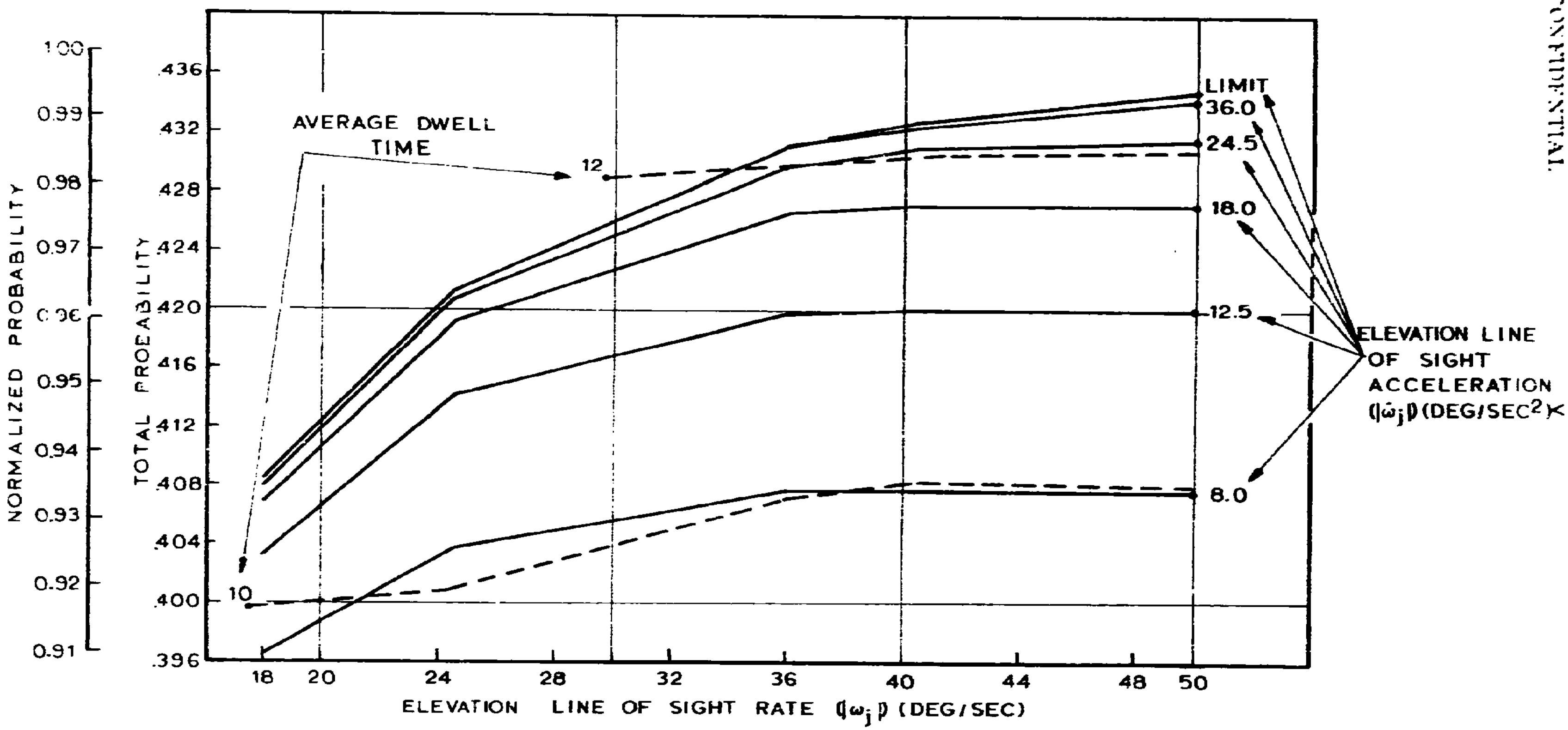


FIG. B-5 – CUMULATIVE PROBABILITY DISTRIBUTION OF ELEVATION LINE OF SIGHT RATE FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE – 225 FT

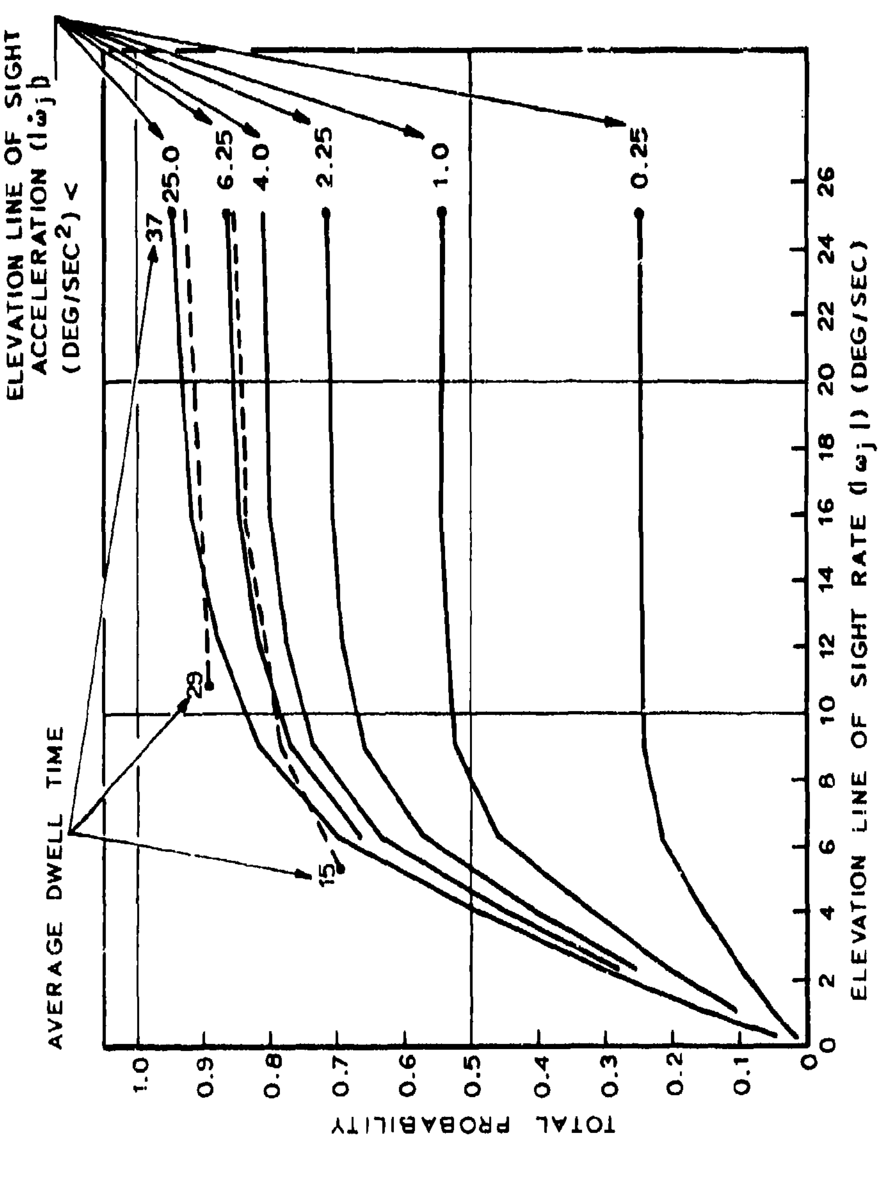


FIG.B-6 - CUMULATIVE PROBABILITY DISTRIBUTION OF ELEVATION LINE OF SIGHT RATE FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

c. (C) Elevation line of sight rate versus elevation line of sight acceleration. (Fig. B-7, B-8, AI coverage; Fig. B-9 Full sphere coverage.)

(C) In the case of the AI radar coverage, 25°/sec elevation line of sight rate and 25°/sec^2 elevation line of sight acceleration yields a 0.95 probability of track with an average duration of track of 11 seconds.

(C) In the case of the full sphere coverage, the same values yield again a 0.95 probability of track with now an average duration of track of 37 seconds.

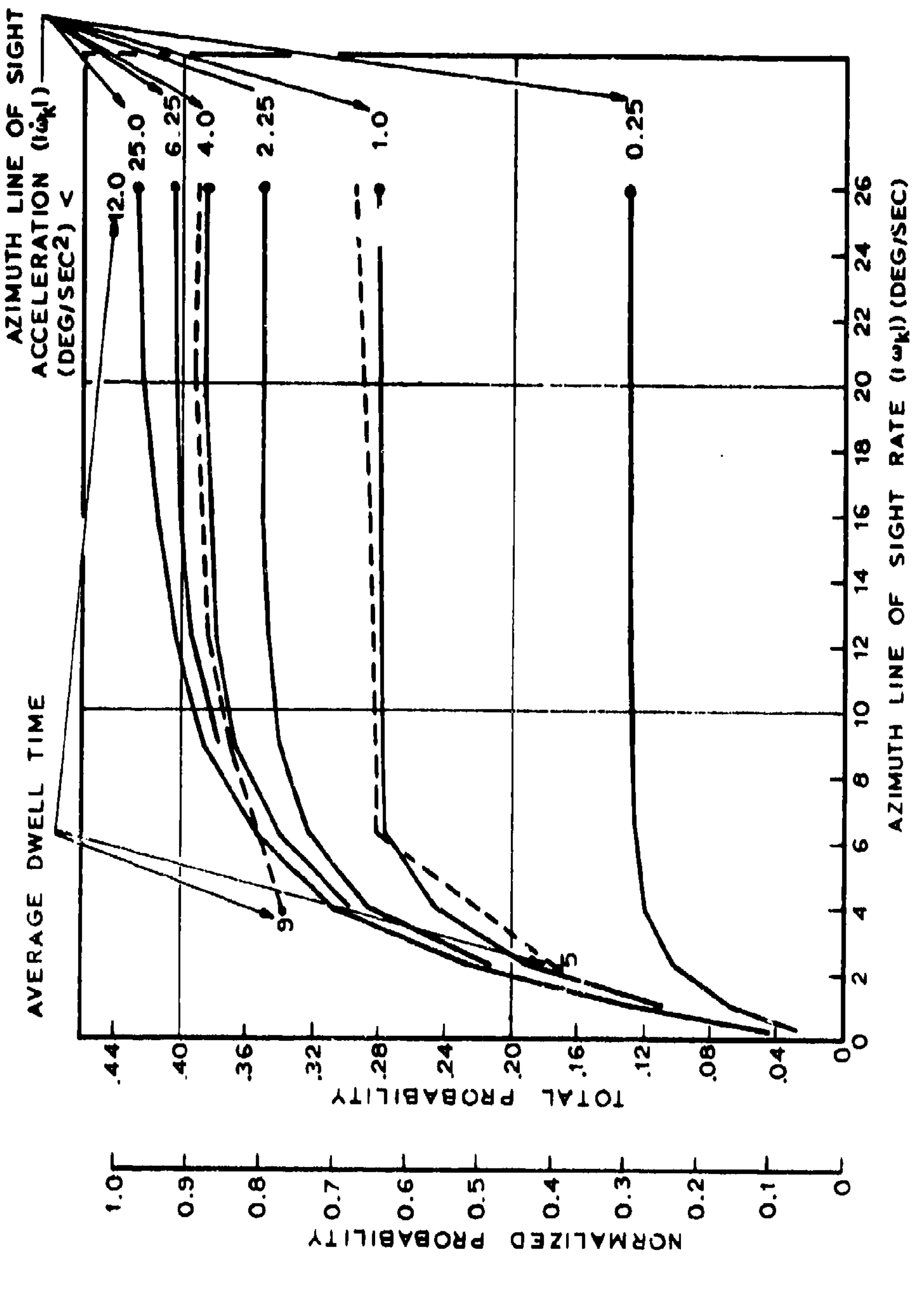


FIG. B-7 - CUMULATIVE PROBABILITY DISTRIBUTION OF AZIMUTH LINE OF SIGHT RATE FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATIONS FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

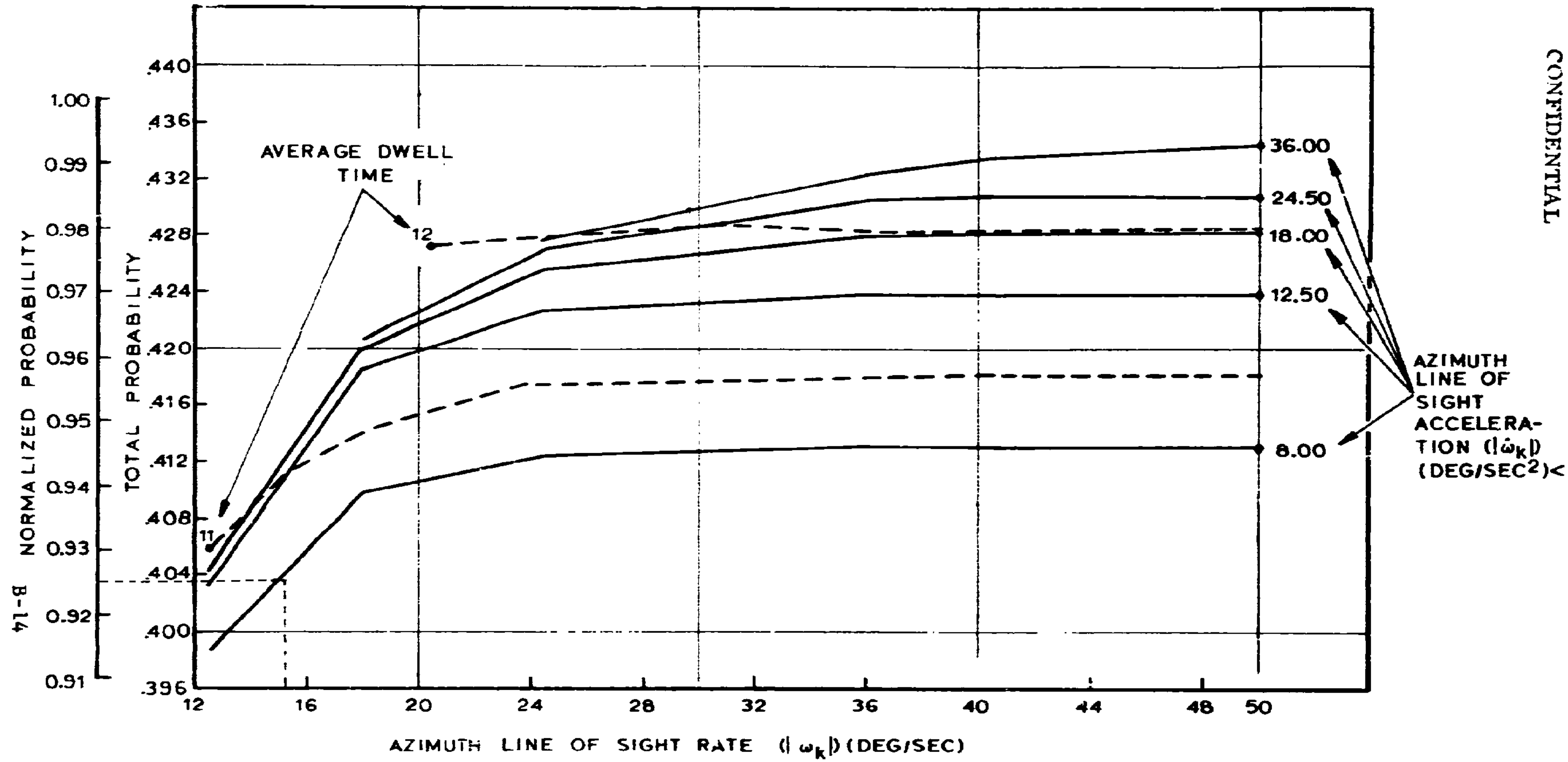


FIG. B-8 - CUMULATIVE PROBABILITY DISTRIBUTION OF AZIMUTH LINE OF SIGHT RATE FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE - 225 FT

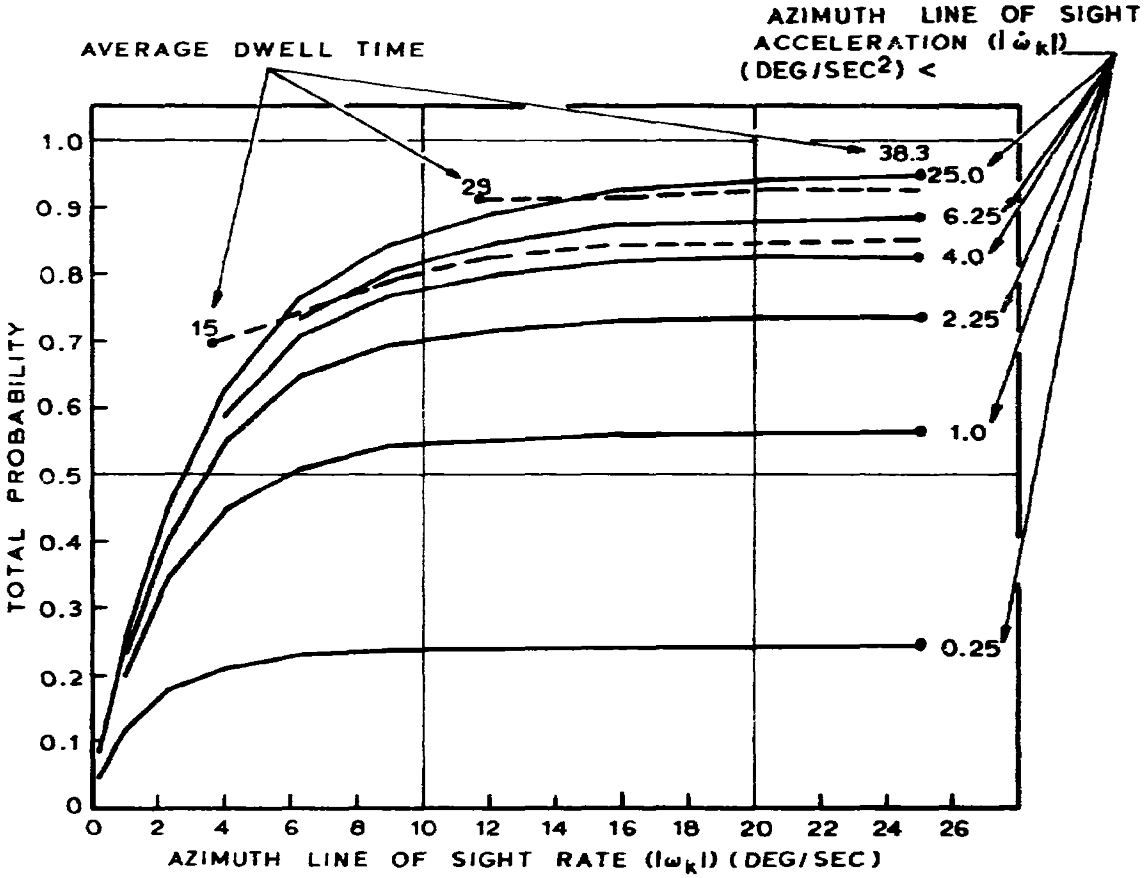


FIG. B-9 - CUMULATIVE PROBABILITY DISTRIBUTION OF AZIMUTH LINE OF SIGHT RATE FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

3. Tracking Requirements Interaction Data Tables

Tables for tracking requirements interactions

a. Range track

i. Nose section (AI radar coverage) - Table B-1

ii. Tail sector - Table B-2

iii. Full sphere - Table B-3

b. Azimuth angle track

i. Nose sector (AI radar coverage) - Table B-4

ii. Tail Sector - Table B-5

iii. Full sphere - Table B-6

c. Elevation angle track

i. Nose sector - (AI radar coverage) - Table B-7

ii. Tail sector - Table B-8

iii. Full sphere - Table B-9

TABLE B-1

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA= 60,00

Y PARAMETER ARDDOT — X PARAMETER ABS VC

TAPE NO. 1

Y		1300,00	1400,00	1500,00	1600,00	1700,00	1800,00	1900,00	2000,00	2100,00	2200,00	LIMIT
180,00	NO,	457	467	482	518	516	512	512	512	512	512	512
	PCT,	33,22	33,63	34,14	35,04	35,75	35,94	36,00	36,05	36,00	36,00	36,00
	DT,	9,11	9,02	8,88	8,48	8,68	8,79	8,81	8,81	8,81	8,81	8,81
	STD,	7,68	7,67	7,70	7,63	7,50	7,46	7,45	7,45	7,45	7,45	7,45
												620,00 AVG
245,00	NO,	452	472	500	510	493	487	486	486	486	486	486
	PCT,	34,50	35,47	36,23	37,16	37,88	38,06	38,12	38,12	38,12	38,12	38,12
	DT,	9,67	9,42	9,08	9,13	9,63	9,79	9,83	9,83	9,83	9,83	9,83
	STD,	8,87	8,83	8,81	8,71	8,58	8,54	8,54	8,54	8,54	8,54	8,54
												637,54 AVG
320,00	NO,	467	472	479	483	464	458	457	457	457	457	457
	PCT,	35,27	36,92	37,68	38,61	39,33	39,51	39,58	39,58	39,58	39,58	39,58
	DT,	9,73	9,80	9,86	10,02	10,62	10,81	10,85	10,85	10,85	10,85	10,85
	STD,	9,34	9,28	9,27	9,18	9,04	9,00	8,99	8,99	8,99	8,99	8,99
												642,66 AVG
405,00	NO,	452	454	461	463	444	438	437	437	437	437	437
	PCT,	36,68	37,33	38,08	39,02	39,74	39,92	39,98	39,98	39,98	39,98	39,98
	DT,	10,17	10,30	10,35	10,56	11,21	11,42	11,46	11,46	11,46	11,46	11,46
	STD,	9,62	9,55	9,54	9,43	9,28	9,22	9,22	9,22	9,22	9,22	9,22
												641,82 AVG
500,00	NO,	447	448	454	454	434	428	427	427	427	427	427
	PCT,	36,92	37,57	38,32	39,26	39,98	40,16	40,22	40,22	40,22	40,22	40,22
	DT,	10,35	10,51	10,58	10,83	11,54	11,76	11,80	11,80	11,80	11,80	11,80
	STD,	9,85	9,78	9,77	9,66	9,49	9,43	9,42	9,42	9,42	9,42	9,42
												640,94 AVG
600,00	NO,	448	449	453	453	432	425	424	424	424	424	424
	PCT,	37,05	37,69	38,45	39,39	40,10	40,29	40,35	40,35	40,35	40,35	40,35
	DT,	10,36	10,52	10,64	10,89	11,63	11,88	11,92	11,92	11,92	11,92	11,92
	STD,	9,94	9,87	9,86	9,75	9,57	9,51	9,50	9,50	9,50	9,50	9,50
												640,54 AVG
700,00	NO,	448	448	451	451	430	423	422	422	422	422	422
	PCT,	37,09	37,73	38,49	39,43	40,14	40,33	40,39	40,39	40,39	40,39	40,39
	DT,	10,37	10,55	10,69	10,95	11,70	11,95	11,99	11,99	11,99	11,99	11,99
	STD,	9,99	9,92	9,90	9,79	9,62	9,55	9,54	9,54	9,54	9,54	9,54
												640,35 AVG
800,00	NO,	451	451	453	451	430	423	422	422	422	422	422
	PCT,	37,13	37,78	38,54	39,47	40,19	40,38	40,44	40,44	40,44	40,44	40,44
	DT,	10,32	10,50	10,66	10,97	11,71	11,96	12,01	12,01	12,01	12,01	12,01
	STD,	9,98	9,91	9,90	9,79	9,61	9,55	9,54	9,54	9,54	9,54	9,54
												640,09 AVG
900,00	NO,	452	452	454	451	430	423	422	422	422	422	422
	PCT,	37,17	37,81	38,57	39,51	40,22	40,41	40,47	40,47	40,47	40,47	40,47
	DT,	10,30	10,48	10,65	10,96	11,72	11,97	12,02	12,02	12,02	12,02	12,02
	STD,	9,98	9,91	9,90	9,78	9,61	9,55	9,54	9,54	9,54	9,54	9,54
												639,88 AVG
1000,00	NO,	452	452	454	451	430	423	422	422	422	422	422
	PCT,	37,17	37,81	38,57	39,51	40,22	40,41	40,47	40,47	40,47	40,47	40,47
	DT,	10,30	10,48	10,65	10,98	11,72	11,97	12,02	12,02	12,02	12,02	12,02
	STD,	9,98	9,91	9,90	9,78	9,61	9,55	9,54	9,54	9,54	9,54	9,54
												639,88 AVG
LIMIT	NO,	453	452	454	451	429	422	421	421	421	421	421
	PCT,	37,18	37,84	38,60	39,53	40,25	40,43	40,49	40,49	40,49	40,49	40,49
	DT,	10,28	10,49	10,65	10,98	11,76	12,00	12,05	12,05	12,05	12,05	12,05
	STD,	9,98	9,95	9,94	9,83	9,65	9,59	9,58	9,58	9,58	9,58	9,58
												639,83 AVG
	AVG,	81,04	82,18	82,98	82,96	82,53	82,45	82,44	82,44	82,44	82,44	82,44

TABLE B-2

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER ARDOBT — X PARAMETER ABS VC

TAPE NO. 1

Y		1300.00	1400.00	1500.00	1600.00	1700.00	1800.00	1900.00	2000.00	2100.00	2200.00	LIMIT
180.00	NO.	412	416	421	421	424	423	424	424	425	424	424
	PCT.	19.56	19.67	19.77	19.86	19.93	19.95	19.97	20.01	20.02	20.05	20.05
	DT.	5.95	5.93	5.88	5.91	5.89	5.91	5.90	5.91	5.90	5.92	5.92
	STD.	6.25	6.25	6.23	6.23	6.21	6.21	6.21	6.21	6.21	6.21	6.21
												423.08 AVG
245.00	NO.	384	384	386	385	388	387	388	388	389	388	388
	PCT.	20.82	20.96	21.05	21.15	21.21	21.24	21.25	21.29	21.31	21.33	21.33
	DT.	6.79	6.84	6.83	6.86	6.85	6.88	6.86	6.88	6.86	6.89	6.89
	STD.	6.89	6.90	6.89	6.91	6.89	6.89	6.89	6.89	6.89	6.88	6.88
												429.05 AVG
320.00	NO.	365	365	368	366	367	366	368	367	367	366	366
	PCT.	21.52	21.69	21.81	21.91	21.98	22.00	22.03	22.07	22.08	22.11	22.11
	DT.	7.39	7.45	7.43	7.50	7.50	7.53	7.50	7.53	7.54	7.57	7.57
	STD.	7.23	7.24	7.24	7.26	7.27	7.29	7.30	7.39	7.38	7.38	7.38
												436.60 AVG
405.00	NO.	357	356	358	356	357	356	358	357	357	356	356
	PCT.	21.87	22.04	22.15	22.25	22.32	22.35	22.37	22.41	22.43	22.45	22.45
	DT.	7.68	7.76	7.75	7.83	7.83	7.87	7.83	7.87	7.87	7.90	7.90
	STD.	7.30	7.31	7.32	7.33	7.34	7.36	7.38	7.47	7.46	7.47	7.47
												437.97 AVG
500.00	NO.	353	352	354	352	353	352	354	353	353	352	352
	PCT.	21.97	22.14	22.27	22.36	22.43	22.46	22.48	22.52	22.54	22.56	22.56
	DT.	7.80	7.88	7.88	7.96	7.96	7.99	7.96	7.99	8.00	8.03	8.03
	STD.	7.35	7.36	7.34	7.38	7.38	7.41	7.42	7.51	7.51	7.52	7.52
												438.98 AVG
600.00	NO.	352	351	353	351	352	351	353	352	352	351	351
	PCT.	22.01	22.18	22.31	22.40	22.47	22.50	22.53	22.57	22.59	22.61	22.61
	DT.	7.84	7.92	7.92	8.00	8.00	8.03	8.00	8.03	8.04	8.07	8.07
	STD.	7.36	7.37	7.37	7.39	7.39	7.41	7.43	7.54	7.54	7.55	7.55
												439.63 AVG
700.00	NO.	350	349	351	349	350	349	351	350	350	349	349
	PCT.	22.05	22.22	22.35	22.44	22.51	22.54	22.57	22.61	22.63	22.65	22.65
	DT.	7.89	7.98	7.98	8.06	8.06	8.09	8.06	8.09	8.10	8.13	8.13
	STD.	7.36	7.37	7.37	7.39	7.40	7.42	7.43	7.54	7.54	7.55	7.55
												440.04 AVG
800.00	NO.	350	349	351	349	350	349	351	350	350	349	349
	PCT.	22.06	22.23	22.35	22.46	22.53	22.56	22.59	22.63	22.65	22.67	22.67
	DT.	7.90	7.98	7.98	8.06	8.07	8.10	8.07	8.10	8.11	8.14	8.14
	STD.	7.36	7.37	7.37	7.39	7.39	7.41	7.43	7.54	7.54	7.55	7.55
												441.85 AVG
900.00	NO.	350	349	351	349	350	349	351	350	350	349	349
	PCT.	22.08	22.24	22.37	22.47	22.55	22.58	22.61	22.65	22.67	22.69	22.69
	DT.	7.93	7.99	7.99	8.07	8.07	8.11	8.07	8.11	8.11	8.15	8.15
	STD.	7.36	7.37	7.37	7.39	7.40	7.42	7.43	7.54	7.54	7.55	7.55
												441.33 AVG
1000.00	NO.	350	349	351	349	351	350	351	350	350	349	349
	PCT.	22.08	22.25	22.38	22.48	22.56	22.59	22.63	22.67	22.68	22.71	22.71
	DT.	7.91	7.99	7.99	8.07	8.05	8.09	8.08	8.11	8.12	8.15	8.15
	STD.	7.36	7.37	7.38	7.39	7.40	7.42	7.43	7.54	7.54	7.55	7.55
												441.99 AVG
LIMIT	NO.	350	350	351	349	351	350	351	350	350	349	349
	PCT.	22.11	22.28	22.43	22.54	22.62	22.65	22.68	22.72	22.74	22.76	22.76
	DT.	7.91	7.98	8.01	8.09	8.07	8.11	8.10	8.13	8.14	8.17	8.17
	STD.	7.36	7.37	7.38	7.39	7.39	7.42	7.43	7.54	7.54	7.55	7.55
												443.87 AVG
	AVG.	91.08	92.49	95.01	95.34	95.57	95.75	95.97	95.93	95.93	95.87	95.87

TABLE B-3

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225,00 LANDA = 60,00

Y PARAMETER ARDDGT

X PARAMETER ABS VC

TAPE NO. 1

		1300,00	1400,00	1500,00	1600,00	1700,00	1800,00	1900,00	2000,00	2100,00	2200,00	LIMIT	
180,00	NO,	848	862	880	916	917	912	913	913	914	913	913	
	PCT,	80,33	81,08	81,71	82,71	83,48	83,69	83,77	83,81	83,82	83,85	83,85	
	DT,	11,90	11,79	11,63	11,31	11,41	11,50	11,50	11,50	11,49	11,51	11,51	
	STD,	12,88	12,84	12,51	12,70	12,63	12,62	12,61	12,61	12,61	12,60	12,60	
												441,27	AVG
245,00	NO,	677	697	725	734	720	713	713	713	714	713	713	
	PCT,	86,10	86,83	87,70	88,73	89,51	89,72	89,80	89,84	89,86	89,88	89,88	
	DT,	15,94	15,61	15,16	15,15	15,58	15,77	15,78	15,79	15,77	15,80	15,80	
	STD,	17,94	17,85	17,84	17,79	17,71	17,71	17,71	17,71	17,70	17,70	17,70	
												446,15	AVG
320,00	NO,	517	522	529	531	513	506	507	506	506	505	505	
	PCT,	89,56	90,88	91,70	92,73	93,52	93,73	93,81	93,85	93,87	93,89	93,89	
	DT,	21,80	21,80	21,72	21,88	22,84	23,21	23,19	23,24	23,25	23,30	23,38	
	STD,	21,89	21,65	21,77	21,78	21,70	21,67	21,67	21,68	21,68	21,67	21,67	
												451,38	AVG
405,00	NO,	394	394	400	400	382	375	376	375	375	374	374	
	PCT,	91,83	92,67	93,58	94,60	95,40	95,60	95,69	95,73	95,75	95,77	95,77	
	DT,	29,20	29,47	29,31	29,63	31,29	31,94	31,89	31,99	31,99	32,09	32,09	
	STD,	27,79	27,82	28,05	28,33	28,29	28,24	28,25	28,29	28,28	28,36	28,36	
												451,09	AVG
500,00	NO,	324	323	328	326	307	299	300	299	299	298	298	
	PCT,	92,85	93,78	94,60	95,63	96,42	96,63	96,72	96,76	96,78	96,80	96,80	
	DT,	35,91	36,35	36,14	36,76	39,36	40,49	40,48	40,55	40,56	40,70	40,70	
	STD,	34,16	34,18	34,39	34,66	34,60	34,52	34,54	34,56	34,55	34,62	34,62	
												449,93	AVG
600,00	NO,	282	281	284	282	262	253	254	253	253	252	252	
	PCT,	93,48	94,33	95,24	96,26	97,06	97,26	97,36	97,40	97,41	97,44	97,44	
	DT,	41,54	42,06	42,02	42,77	46,42	48,17	48,03	48,24	48,25	48,45	48,45	
	STD,	39,89	40,43	40,71	41,04	41,07	40,91	40,93	40,95	40,94	40,99	40,99	
												449,60	AVG
700,00	NO,	244	241	243	241	221	212	213	212	212	211	211	
	PCT,	93,94	94,79	95,70	96,73	97,52	97,73	97,82	97,86	97,88	97,90	97,90	
	DT,	48,24	49,28	49,35	50,29	55,29	57,76	57,54	57,84	57,85	58,14	58,14	
	STD,	46,07	46,65	47,11	47,52	47,38	47,03	47,06	47,05	47,04	47,07	47,07	
												449,36	AVG
800,00	NO,	218	215	215	211	191	182	183	182	182	181	181	
	PCT,	94,32	95,16	96,07	97,11	97,91	98,12	98,22	98,26	98,28	98,38	98,38	
	DT,	54,21	55,46	55,99	57,67	64,23	67,55	67,25	67,65	67,66	68,05	68,05	
	STD,	53,60	57,55	58,02	58,51	58,82	58,55	58,57	59,56	58,55	58,57	58,57	
												449,45	AVG
900,00	NO,	197	193	193	188	168	159	160	159	159	158	158	
	PCT,	94,60	95,45	96,36	97,40	98,20	98,41	98,51	98,55	98,56	98,59	98,59	
	DT,	60,17	61,97	62,56	64,91	73,24	77,55	77,14	77,66	77,67	78,18	78,18	
	STD,	58,47	62,49	67,10	67,73	69,46	69,45	69,50	69,48	69,47	69,48	69,48	
												449,45	AVG
1000,00	NO,	186	182	182	176	156	147	147	146	146	145	145	
	PCT,	94,75	95,59	96,50	97,54	98,35	98,56	98,66	98,70	98,72	98,74	98,74	
	DT,	63,83	65,81	66,44	69,44	78,99	84,01	84,18	84,71	84,72	85,32	85,32	
	STD,	60,81	65,36	71,04	71,78	73,62	73,24	73,25	73,28	73,24	77,99	77,99	
												449,68	AVG
LIMIT	NO,	114	101	87	64	28	17	13	12	12	11	11	
	PCT,	95,81	96,69	97,62	98,71	99,52	99,74	99,84	99,88	99,90	99,92	99,92	
	DT,	105,31	119,95	140,60	193,25	445,36	735,18	962,31	1042,92	1043,08	1138,18	1138,18	
	STD,	75,91	91,80	103,96	140,00	349,56	598,54	724,22	761,67	761,91	798,41	798,41	
												452,48	AVG
	AVG,	117,29	118,11	118,82	119,44	119,26	119,47	119,48	119,46	119,46	119,44	119,44	

TABLE B-4

PARAMETER INTERACTION OFF NOSE

SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER AWKDF | X PARAMETER AWKF

TAPE NO. :

Y		5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	LIMIT
5.00	NO.	468	488	506	513	516	517	517	517	517	517	517
	PCT.	29.82	34.85	36.15	36.49	36.54	36.57	36.57	36.57	36.57	36.57	36.57
	DT.	7.99	8.95	8.95	8.91	8.87	8.86	8.86	8.86	8.86	8.86	8.86
	STD.	8.41	8.51	8.45	8.44	8.44	8.43	8.43	8.43	8.43	8.43	8.43
												2.92 AVG
10.00	NO.	467	451	450	448	45:	450	450	450	450	452	452
	PCT.	30.33	35.95	37.70	38.44	38.61	38.67	38.67	38.67	38.67	38.68	38.68
	DT.	8.14	9.99	10.50	10.75	10.73	10.77	10.77	10.77	10.77	10.72	10.72
	STD.	8.52	9.07	9.11	9.15	9.16	9.15	9.15	9.15	9.15	9.15	9.15
												3.34 AVG
15.00	NO.	476	449	438	435	434	433	433	433	433	435	435
	PCT.	30.45	36.12	38.00	38.91	39.18	39.27	39.29	39.29	39.29	39.31	39.31
	DT.	8.02	10.08	10.87	11.21	11.31	11.36	11.37	11.37	11.37	11.32	11.32
	STD.	8.49	9.08	9.25	9.29	9.31	9.38	9.38	9.38	9.36	9.38	9.38
												3.51 AVG
20.00	NO.	478	448	435	429	427	425	425	425	425	426	426
	PCT.	30.47	36.16	38.06	39.06	39.39	39.56	39.60	39.62	39.63	39.65	39.65
	DT.	7.99	10.11	10.96	11.41	11.56	11.66	11.68	11.69	11.68	11.66	11.66
	STD.	8.49	9.12	9.35	9.45	9.51	9.58	9.58	9.58	9.58	9.58	9.58
												3.67 AVG
25.00	NO.	479	449	436	429	426	424	424	424	424	425	425
	PCT.	30.48	36.18	38.10	39.10	39.50	39.73	39.81	39.86	39.86	39.88	39.89
	DT.	7.99	10.10	10.95	11.42	11.62	11.74	11.76	11.78	11.78	11.76	11.76
	STD.	8.49	9.11	9.35	9.45	9.50	9.57	9.57	9.57	9.57	9.57	9.57
												3.81 AVG
30.00	NO.	478	450	437	430	426	424	424	423	423	424	423
	PCT.	30.48	36.19	38.11	39.11	39.53	39.78	39.90	39.98	40.01	40.04	40.06
	DT.	7.99	10.08	10.93	11.40	11.63	11.75	11.79	11.84	11.85	11.83	11.87
	STD.	8.49	9.11	9.35	9.45	9.50	9.57	9.57	9.57	9.58	9.58	9.58
												3.93 AVG
35.00	NO.	478	450	437	430	426	424	424	423	422	423	422
	PCT.	30.48	36.19	38.12	39.12	39.54	39.78	39.94	40.04	40.11	40.15	40.18
	DT.	7.99	10.08	10.93	11.40	11.63	11.76	11.80	11.86	11.91	11.89	11.93
	STD.	8.49	9.11	9.35	9.45	9.50	9.57	9.56	9.57	9.58	9.58	9.59
												4.03 AVG
40.00	NO.	479	451	438	432	427	425	425	423	422	423	422
	PCT.	30.49	36.20	38.12	39.15	39.56	39.81	39.96	40.08	40.16	40.20	40.24
	DT.	7.97	10.06	10.91	11.35	11.61	11.74	11.78	11.87	11.92	11.91	11.95
	STD.	8.48	9.11	9.35	9.45	9.50	9.58	9.57	9.57	9.58	9.58	9.58
												4.08 AVG
45.00	NO.	479	451	438	432	427	424	424	422	421	422	421
	PCT.	30.49	36.20	38.12	39.15	39.56	39.82	39.98	40.10	40.18	40.23	40.32
	DT.	7.97	10.06	10.91	11.35	11.61	11.77	11.81	11.91	11.96	11.95	12.00
	STD.	8.48	9.11	9.35	9.45	9.50	9.57	9.57	9.56	9.58	9.58	9.58
												4.16 AVG
50.00	NO.	479	451	438	432	427	424	424	422	421	422	421
	PCT.	30.49	36.20	38.12	39.15	39.56	39.82	39.98	40.10	40.18	40.24	40.36
	DT.	7.97	10.06	10.91	11.35	11.61	11.77	11.81	11.91	11.96	11.95	12.01
	STD.	8.48	9.11	9.35	9.45	9.50	9.57	9.57	9.56	9.58	9.58	9.58
												4.22 AVG
LIMIT	NO.	479	451	438	432	427	424	424	422	421	422	421
	PCT.	30.49	36.20	38.12	39.15	39.56	39.82	39.98	40.10	40.19	40.25	40.49
	DT.	7.97	10.06	10.91	11.35	11.61	11.77	11.81	11.91	11.96	11.95	12.05
	STD.	8.48	9.11	9.35	9.45	9.50	9.57	9.57	9.56	9.58	9.57	9.58
												4.48 AVG
	AVG.	0.85	1.11	1.28	1.46	1.58	1.68	1.77	1.84	1.92	1.95	2.31

TABLE B-5

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AWKDF — X PARAMETER AWKF — TAPE NO. 1

Y		5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	LIMIT
5.00	NO.	364	387	397	402	402	405	405	405	405	405	405
	PCT.	16.96	19.39	19.73	19.83	19.84	19.86	19.86	19.86	19.86	19.86	19.86
	DT.	5.84	6.28	6.23	6.18	6.18	6.15	6.15	6.15	6.15	6.15	6.15
	STD.	6.67	6.66	6.63	6.62	6.62	6.61	6.61	6.61	6.61	6.61	6.61
												2.68 AVG
10.00	NO.	359	345	351	352	353	356	356	356	356	356	356
	PCT.	17.81	20.86	21.37	21.49	21.51	21.53	21.53	21.53	21.53	21.53	21.53
	DT.	6.21	7.58	7.63	7.65	7.63	7.58	7.58	7.58	7.58	7.58	7.58
	STD.	6.74	7.43	7.43	7.44	7.43	7.43	7.43	7.43	7.43	7.43	7.43
												2.90 AVG
15.00	NO.	361	343	349	349	350	353	353	353	353	353	353
	PCT.	17.95	21.16	21.76	21.88	21.90	21.92	21.92	21.92	21.92	21.92	21.92
	DT.	6.23	7.73	7.81	7.86	7.84	7.78	7.78	7.78	7.78	7.78	7.78
	STD.	6.73	7.47	7.47	7.48	7.48	7.47	7.47	7.47	7.47	7.47	7.47
												2.97 AVG
20.00	NO.	362	344	348	348	348	350	350	350	350	350	350
	PCT.	18.00	21.31	21.97	22.12	22.15	22.17	22.18	22.18	22.18	22.18	22.18
	DT.	6.23	7.76	7.91	7.97	7.97	7.94	7.94	7.94	7.94	7.94	7.94
	STD.	6.74	7.48	7.49	7.50	7.51	7.50	7.50	7.50	7.50	7.50	7.50
												3.05 AVG
25.00	NO.	362	344	348	348	348	348	348	348	348	348	348
	PCT.	18.04	21.40	22.12	22.27	22.30	22.33	22.34	22.34	22.34	22.34	22.34
	DT.	6.25	7.80	7.97	8.02	8.03	8.04	8.04	8.04	8.04	8.04	8.04
	STD.	6.74	7.48	7.48	7.49	7.50	7.50	7.50	7.50	7.50	7.50	7.50
												3.09 AVG
30.00	NO.	362	344	347	347	347	347	347	347	347	347	347
	PCT.	18.06	21.45	22.20	22.38	22.41	22.44	22.45	22.45	22.45	22.45	22.45
	DT.	6.25	7.81	8.02	8.08	8.09	8.10	8.11	8.11	8.11	8.11	8.11
	STD.	6.73	7.48	7.55	7.55	7.56	7.56	7.56	7.56	7.56	7.56	7.56
												3.13 AVG
35.00	NO.	362	344	348	348	348	348	348	348	348	348	348
	PCT.	18.06	21.46	22.23	22.41	22.44	22.47	22.48	22.48	22.48	22.48	22.48
	DT.	6.25	7.82	8.01	8.07	8.08	8.09	8.09	8.09	8.09	8.09	8.09
	STD.	6.73	7.48	7.54	7.55	7.56	7.55	7.55	7.55	7.55	7.55	7.55
												3.14 AVG
40.00	NO.	362	344	349	349	349	349	349	349	349	349	349
	PCT.	18.08	21.49	22.27	22.45	22.48	22.51	22.52	22.52	22.52	22.52	22.52
	DT.	6.26	7.83	8.00	8.06	8.07	8.08	8.09	8.09	8.09	8.09	8.09
	STD.	6.74	7.49	7.55	7.55	7.56	7.56	7.56	7.56	7.56	7.56	7.56
												3.14 AVG
45.00	NO.	362	344	349	349	349	349	349	349	349	349	349
	PCT.	18.08	21.50	22.29	22.47	22.50	22.54	22.55	22.55	22.55	22.55	22.55
	DT.	6.26	7.83	8.00	8.07	8.08	8.09	8.10	8.10	8.10	8.10	8.10
	STD.	6.74	7.49	7.55	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.56
												3.17 AVG
50.00	NO.	362	344	349	349	349	349	349	349	349	349	349
	PCT.	18.09	21.53	22.33	22.51	22.55	22.59	22.60	22.50	22.60	22.60	22.60
	DT.	6.26	7.84	8.02	8.08	8.09	8.11	8.11	8.11	8.11	8.11	8.11
	STD.	6.74	7.49	7.55	7.56	7.57	7.56	7.56	7.56	7.56	7.56	7.56
												3.18 AVG
LIMIT	NO.	362	344	349	349	349	349	349	349	349	349	349
	PCT.	18.13	21.62	22.44	22.65	22.68	22.73	22.75	22.75	22.75	22.75	22.76
	DT.	6.28	7.88	8.06	8.13	8.14	8.16	8.17	8.17	8.17	8.17	8.17
	STD.	6.74	7.48	7.54	7.55	7.56	7.55	7.55	7.55	7.55	7.55	7.55
												3.28 AVG
	AVG.	1.75	2.43	2.78	2.96	2.98	3.03	3.05	3.05	3.05	3.05	3.12

TABLE B-6

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AWKDF — X PARAMETER AWKF

TAPE NO. 1

Y PARAMETER AWKDF		5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	LIMIT
5.00	NO.	749	717	730	735	757	766	772	778	782	785	785
	PCT.	66.37	80.38	84.30	85.35	85.65	85.79	85.84	85.89	85.92	85.95	85.95
	DT.	11.10	14.05	14.47	14.55	14.18	14.03	13.93	13.83	13.77	13.72	13.72
	STD.	13.18	15.22	15.86	15.98	15.92	15.94	15.92	15.90	15.89	15.88	15.88
												3.46 AVG
10.00	NO.	722	497	458	436	440	441	447	454	458	466	469
	PCT.	68.72	84.57	89.43	91.18	91.75	92.09	92.21	92.27	92.30	92.36	92.39
	DT.	11.93	21.32	24.47	26.20	26.13	26.17	25.85	25.46	25.25	24.83	24.68
	STD.	13.79	19.81	22.54	24.59	25.36	26.77	26.76	26.73	26.71	26.67	26.65
												3.87 AVG
15.00	NO.	742	475	410	375	362	356	357	363	369	377	380
	PCT.	69.20	85.48	90.69	92.77	93.50	93.97	94.17	94.24	94.30	94.37	94.40
	DT.	11.69	22.55	27.71	31.00	32.36	33.08	33.05	32.53	32.02	31.37	31.13
	STD.	13.72	20.25	24.17	27.79	31.03	33.54	33.86	33.83	33.79	33.72	33.70
												4.07 AVG
20.00	NO.	748	474	398	347	328	313	301	301	305	313	320
	PCT.	69.35	85.86	91.25	93.53	94.41	95.00	95.28	95.43	95.54	95.66	95.73
	DT.	11.62	22.70	28.73	33.77	36.06	38.03	39.66	39.73	39.12	38.29	37.48
	STD.	13.70	20.30	24.96	28.85	33.04	36.45	37.54	38.23	38.31	38.47	38.44
												4.29 AVG
25.00	NO.	751	477	392	334	311	276	259	256	260	260	268
	PCT.	69.45	86.09	91.65	93.94	94.94	95.65	95.99	96.19	96.30	96.46	96.55
	DT.	11.59	22.61	29.30	35.24	38.25	43.42	46.44	47.08	46.41	46.48	45.14
	STD.	13.69	20.32	25.06	29.05	34.38	46.17	48.35	49.52	49.65	50.11	50.11
												4.43 AVG
30.00	NO.	751	479	391	326	299	263	239	229	226	217	223
	PCT.	69.48	86.21	91.85	94.25	95.27	96.01	96.42	96.68	96.84	97.02	97.19
	DT.	11.59	22.55	29.43	36.22	39.92	45.74	50.55	52.90	53.69	56.02	54.61
	STD.	13.69	20.33	25.20	29.49	35.48	48.56	51.97	53.93	55.06	58.73	59.67
												4.58 AVG
35.00	NO.	752	480	393	323	296	259	234	220	206	192	191
	PCT.	69.51	86.26	92.00	94.41	95.45	96.19	96.67	96.99	97.21	97.39	97.64
	DT.	11.58	22.52	29.33	36.62	40.41	46.54	51.76	55.24	59.13	63.56	64.05
	STD.	13.69	20.34	25.22	29.42	35.50	49.38	53.00	55.31	58.31	62.37	64.81
												4.78 AVG
40.00	NO.	753	483	395	324	293	253	228	211	195	178	168
	PCT.	69.54	86.34	92.10	94.56	95.62	96.38	96.86	97.20	97.42	97.61	97.93
	DT.	11.57	22.40	29.22	36.57	40.89	47.73	53.23	57.72	62.60	68.71	73.04
	STD.	13.69	20.35	25.24	29.45	36.03	51.43	55.82	58.72	62.25	68.41	77.84
												4.77 AVG
45.00	NO.	753	483	345	324	290	248	221	202	185	[illegible]44	139
	PCT.	69.55	86.37	92.15	94.67	95.75	96.54	97.06	97.40	97.63	[illegible].85	98.24
	DT.	11.57	22.41	29.23	36.41	41.37	48.78	55.03	60.42	66.12	74.76	88.55
	STD.	13.69	20.36	25.24	29.45	36.12	52.85	57.60	61.49	65.29	74.78	91.51
												4.85 AVG
50.00	NO.	755	484	395	324	290	245	217	196	179	156	112
	PCT.	69.59	86.46	92.27	94.82	95.95	96.75	97.26	97.62	97.86	98.09	98.60
	DT.	11.55	22.38	29.27	36.47	41.46	49.48	56.14	62.4[illegible]	68.50	78.79	110.30
	STD.	13.68	20.37	25.24	29.44	36.12	53.26	58.24	63.25	68.03	78.71	108.64
												4.95 AVG
LIMIT	NO.	757	484	395	324	290	245	215	191	171	145	11
	PCT.	69.76	86.74	92.68	95.39	96.57	97.41	97.93	98.32	98.58	98.83	99.92
	DT.	11.55	22.45	29.40	36.89	41.72	49.82	57.07	64.50	72.23	85.41	1138.18
	STD.	13.68	20.38	25.24	29.41	36.09	53.22	58.34	64.48	71.29	83.97	798.41
												5.62 AVG
	AVG.	1.58	2.05	2.44	2.78	2.94	3.06	3.15	3.25	3.31	3.36	4.05

TABLE B-7

PARAMETER INTERACTION REF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER AWJDP — X PARAMETER AWJF

TAPE NO. 1

Y		5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	LIMIT	
5.00	NO.	415	477	500	509	518	524	530	532	532	532	532	
	PCT.	23.53	31.84	34.30	35.11	35.36	35.49	35.55	35.56	35.56	35.56	35.56	
	CT.	7.10	8.36	8.60	8.64	8.55	8.49	8.40	8.38	8.38	8.38	8.38	
	STD.	8.05	8.16	8.15	8.20	8.22	8.21	8.20	8.19	8.19	8.19	8.19	
												4.66	AVG
10.00	NO.	413	451	468	463	465	467	464	468	468	468	468	
	PCT.	23.90	32.79	35.86	37.18	37.76	38.08	38.21	38.27	38.27	38.27	38.27	
	CT.	7.25	9.11	9.60	10.06	10.17	10.22	10.32	10.25	10.25	10.25	10.25	
	STD.	8.14	8.52	8.77	8.84	8.90	9.01	9.07	9.07	9.07	9.07	9.07	
												5.33	AVG
15.00	NO.	419	450	456	450	448	445	440	442	442	442	442	
	PCT.	23.97	33.86	36.25	[illegible]	38.50	38.92	39.08	39.15	39.15	39.15	39.15	
	CT.	7.17	9.21	9.93	10.52	10.77	10.96	11.13	11.10	11.10	11.10	11.10	
	STD.	8.11	8.55	8.83	8.92	8.98	9.17	9.31	9.31	9.31	9.31	9.31	
												5.57	AVG
20.00	NO.	424	457	458	445	440	434	428	427	427	428	429	
	PCT.	24.01	33.26	36.38	37.96	38.75	39.26	39.49	39.61	39.63	39.64	39.65	
	CT.	7.09	9.09	9.95	10.69	11.04	11.33	11.56	11.62	11.63	11.61	11.58	
	STD.	8.09	8.54	8.84	9.03	9.18	9.42	9.55	9.55	9.56	9.56	9.56	
												5.80	AVG
25.00	NO.	424	458	458	444	436	431	426	425	425	426	427	
	PCT.	24.01	33.17	36.42	38.02	38.83	39.39	39.69	39.83	39.87	39.89	39.91	
	CT.	7.09	9.07	9.96	10.73	11.11	11.45	11.67	11.74	11.76	11.73	11.71	
	STD.	8.09	8.54	8.83	9.02	9.16	9.40	9.53	9.54	9.54	9.54	9.55	
												5.96	AVG
30.00	NO.	424	459	459	445	438	429	424	423	423	423	423	
	PCT.	24.01	33.18	36.43	38.04	38.87	39.43	39.77	39.94	40.02	40.06	40.11	
	CT.	7.09	9.06	9.95	10.71	11.12	11.52	11.75	11.83	11.86	11.87	11.88	
	STD.	8.09	8.54	8.83	9.02	9.17	9.41	9.55	9.56	9.56	9.56	9.56	
												6.12	AVG
35.00	NO.	424	459	460	446	438	429	423	422	422	422	422	
	PCT.	24.01	33.18	36.44	38.06	38.88	39.45	39.78	39.96	40.07	40.14	40.19	
	CT.	7.09	9.06	9.93	10.69	11.12	11.52	11.78	11.86	11.90	11.92	11.93	
	STD.	8.09	8.54	8.83	9.02	9.17	9.42	9.56	9.57	9.57	9.57	9.57	
												6.18	AVG
40.00	NO.	424	459	460	446	438	429	423	422	422	421	421	
	PCT.	24.01	33.18	36.44	38.06	38.88	39.45	39.79	39.98	40.12	40.19	40.29	
	CT.	7.09	9.06	9.93	10.69	11.12	11.52	11.79	11.87	11.91	11.96	11.99	
	STD.	8.09	8.54	8.83	9.02	9.17	9.42	9.56	9.57	9.57	9.56	9.57	
												6.29	AVG
45.00	NO.	424	459	460	446	438	429	423	422	422	421	421	
	PCT.	24.01	33.18	36.44	38.06	38.88	39.45	39.80	39.98	40.14	40.22	40.33	
	CT.	7.09	9.06	9.93	10.69	11.12	11.52	11.79	11.87	11.92	11.97	12.00	
	STD.	8.09	8.54	8.83	9.02	9.17	9.42	9.56	9.57	9.57	9.56	9.56	
												6.33	AVG
50.00	NO.	424	459	460	446	438	429	423	422	422	421	421	
	PCT.	24.01	33.18	36.44	38.06	38.86	39.45	39.80	39.98	40.14	40.22	40.36	
	CT.	7.09	9.06	9.93	10.69	11.12	11.52	11.79	11.87	11.92	11.97	12.01	
	STD.	8.09	8.54	8.83	9.02	9.17	9.42	9.56	9.57	9.57	9.56	9.57	
												6.38	AVG
LIMIT	NO.	424	459	460	446	438	429	423	422	422	421	421	
	PCT.	24.01	33.18	36.44	38.06	38.86	39.45	39.80	39.99	40.14	40.22	40.49	
	CT.	7.09	9.06	9.93	10.69	11.12	11.52	11.79	11.87	11.92	11.97	12.05	
	STD.	8.09	8.54	8.83	9.02	9.17	9.42	9.56	9.56	9.56	9.56	9.58	
												6.64	AVG
	AVG.	0.83	1.09	1.32	1.53	1.67	1.80	1.92	2.00	2.11	2.16	2.50	

TABLE B-8

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AWJDF — X PARAMETER AWJF

TAPE NO. 1

Y		5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	LIMIT
5.00	NO.	311	395	414	415	415	417	418	418	418	418	418
	PCT.	12.14	18.00	19.03	19.26	19.29	19.31	19.32	19.32	19.32	19.32	19.32
	DT.	4.89	5.71	5.76	5.81	5.82	5.80	5.79	5.79	5.79	5.79	5.79
	STD.	6.66	6.25	6.25	6.24	6.24	6.24	6.23	6.23	6.23	6.23	6.23
												4.41 AVG
10.00	NO.	306	349	363	364	364	365	367	367	367	367	367
	PCT.	13.19	19.47	20.73	21.04	21.11	21.13	21.16	21.16	21.16	21.16	21.16
	DT.	5.40	6.99	7.16	7.24	7.27	7.25	7.22	7.22	7.22	7.22	7.22
	STD.	6.91	7.06	7.13	7.15	7.15	7.15	7.14	7.14	7.14	7.14	7.14
												4.55 AVG
15.00	NO.	310	336	348	348	348	349	352	352	352	352	352
	PCT.	13.36	20.00	21.32	21.65	21.72	21.76	21.79	21.79	21.79	21.79	21.79
	DT.	5.41	7.46	7.68	7.80	7.82	7.81	7.76	7.76	7.76	7.76	7.76
	STD.	6.89	7.14	7.20	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23
												4.62 AVG
20.00	NO.	317	336	348	347	347	347	348	348	348	348	348
	PCT.	13.50	20.21	21.60	21.99	22.07	22.10	22.13	22.13	22.13	22.13	22.13
	DT.	5.34	7.54	7.78	7.94	7.97	7.98	7.97	7.97	7.97	7.97	7.97
	STD.	6.83	7.21	7.29	7.33	7.33	7.33	7.34	7.34	7.34	7.34	7.34
												4.69 AVG
25.00	NO.	317	336	347	346	346	346	346	346	346	346	346
	PCT.	13.54	20.27	21.72	22.15	22.24	22.27	22.31	22.31	22.31	22.31	22.31
	DT.	5.35	7.56	7.84	8.02	8.05	8.07	8.08	8.08	8.08	8.08	8.08
	STD.	6.84	7.21	7.49	7.53	7.54	7.54	7.54	7.54	7.54	7.54	7.54
												4.74 AVG
30.00	NO.	318	338	349	347	347	347	347	347	347	347	347
	PCT.	13.56	20.35	21.82	22.26	22.36	22.39	22.43	22.43	22.43	22.43	22.43
	DT.	5.35	7.54	7.83	8.04	8.07	8.09	8.10	8.10	8.10	8.10	8.10
	STD.	6.82	7.20	7.47	7.52	7.54	7.54	7.55	7.55	7.55	7.55	7.55
												4.76 AVG
35.00	NO.	319	339	350	345	348	348	348	348	348	348	348
	PCT.	13.40	20.39	21.87	22.31	22.42	22.45	22.48	22.48	22.48	22.48	22.48
	DT.	5.34	7.54	7.83	8.03	8.07	8.08	8.09	8.09	8.09	8.09	8.09
	STD.	6.82	7.20	7.47	7.52	7.54	7.54	7.54	7.54	7.54	7.54	7.54
												4.77 AVG
40.00	NO.	320	339	350	348	348	348	348	348	348	348	348
	PCT.	13.41	20.41	21.90	22.35	22.47	22.51	22.54	22.54	22.54	22.54	22.54
	DT.	5.33	7.54	7.84	8.05	8.09	8.10	8.11	8.11	8.11	8.11	8.11
	STD.	6.81	7.20	7.47	7.52	7.53	7.54	7.54	7.54	7.54	7.54	7.54
												4.79 AVG
45.00	NO.	320	339	350	348	348	348	348	348	348	348	348
	PCT.	13.41	20.42	21.91	22.36	22.48	22.52	22.55	22.55	22.55	22.55	22.55
	DT.	5.33	7.55	7.84	8.05	8.09	8.11	8.12	8.12	8.12	8.12	8.12
	STD.	6.81	7.20	7.47	7.52	7.53	7.54	7.54	7.54	7.54	7.54	7.54
												4.80 AVG
50.00	NO.	320	339	350	346	349	349	349	349	349	349	349
	PCT.	13.41	20.44	21.95	22.40	22.53	22.57	22.60	22.60	22.60	22.60	22.60
	DT.	5.33	7.55	7.86	8.07	8.09	8.10	8.11	8.11	8.11	8.11	8.11
	STD.	6.81	7.20	7.49	7.54	7.55	7.56	7.56	7.56	7.56	7.56	7.56
												4.82 AVG
LIMIT	NO.	322	339	350	348	349	349	349	349	349	349	349
	PCT.	13.47	20.53	22.07	22.53	22.67	22.71	22.74	22.74	22.74	22.74	22.76
	DT.	5.32	7.59	7.90	8.11	8.14	8.15	8.16	8.16	8.16	8.16	8.17
	STD.	6.80	7.20	7.48	7.52	7.54	7.55	7.55	7.55	7.55	7.55	7.55
												4.90 AVG
	AVG.	2.37	2.55	2.58	3.03	3.12	3.13	3.14	3.14	3.14	3.14	3.24

TABLE B-9

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AWJDF — X PARAMETER AWJF

TAPE NO. 1

Y		5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	LIMIT
5.00	NO.	753	750	786	796	817	826	638	840	842	842	842
	PCT.	55.66	77.24	82.94	83.39	83.92	84.17	84.29	84.30	84.32	84.32	84.32
	DT.	9.77	12.90	13.06	13.13	12.87	12.77	12.60	12.57	12.55	12.55	12.55
	STD.	11.99	13.49	13.83	14.02	13.98	13.96	13.92	13.92	13.91	13.91	13.91
												4.47 AVG
10.00	NO.	738	520	507	495	497	495	494	498	504	504	506
	PCT.	59.32	81.54	87.54	89.70	90.68	91.21	91.42	91.49	91.54	91.54	91.56
	DT.	10.32	19.85	21.44	22.71	22.86	23.09	23.19	23.02	22.76	22.76	22.67
	STD.	14.19	18.11	19.91	21.20	21.56	21.79	21.89	21.90	21.90	21.90	21.90
												4.91 AVG
15.00	NO.	734	475	426	398	386	372	368	369	377	377	379
	PCT.	59.95	83.72	89.35	91.66	93.10	93.76	94.03	94.13	94.19	94.19	94.21
	DT.	10.36	21.90	26.28	28.92	30.22	31.58	32.02	31.96	31.31	31.31	31.15
	STD.	13.09	19.05	22.73	29.43	29.73	30.35	31.21	31.23	31.22	31.22	31.22
												5.09 AVG
20.00	NO.	753	485	416	373	349	324	310	304	310	311	313
	PCT.	59.24	83.59	90.16	92.84	94.21	94.96	95.32	95.49	95.58	95.59	95.61
	DT.	9.86	20.60	27.16	31.19	33.82	34.72	38.53	39.36	38.63	38.51	38.27
	STD.	13.05	19.26	23.46	30.77	33.20	34.09	35.17	35.20	35.27	35.28	35.29
												5.25 AVG
25.00	NO.	756	494	409	356	321	293	274	265	267	266	268
	PCT.	59.34	83.64	90.54	93.34	94.76	95.61	96.06	96.27	96.39	96.41	96.45
	DT.	9.83	21.77	27.74	32.85	37.06	40.89	43.93	45.52	45.24	45.41	45.09
	STD.	12.99	19.29	23.96	31.74	36.11	37.70	40.57	40.75	40.79	40.79	40.81
												5.37 AVG
30.00	NO.	757	497	412	347	305	271	250	239	241	239	239
	PCT.	59.43	84.01	90.79	93.69	95.18	96.04	96.52	96.77	96.94	96.99	97.06
	DT.	9.84	21.18	27.61	33.63	39.10	44.41	48.38	50.73	50.40	50.85	50.88
	STD.	12.99	19.30	24.74	32.25	37.04	41.34	45.59	47.87	47.88	47.88	47.88
												5.47 AVG
35.00	NO.	740	500	416	341	292	247	220	206	203	200	198
	PCT.	59.50	84.16	90.99	93.97	95.50	96.41	96.91	97.19	97.40	97.49	97.59
	DT.	9.81	21.09	27.41	34.53	40.96	49.91	55.20	59.12	60.12	61.08	61.76
	STD.	12.97	19.31	24.76	32.48	37.62	43.57	50.02	54.07	54.54	54.45	54.61
												5.57 AVG
40.00	NO.	742	501	417	342	284	237	207	193	187	183	179
	PCT.	59.53	84.22	91.09	94.09	95.67	96.61	97.14	97.43	97.48	97.79	97.93
	DT.	9.79	21.06	27.37	34.47	42.21	52.08	58.60	63.25	65.45	66.96	68.55
	STD.	12.96	19.33	24.06	32.51	38.70	44.35	55.87	60.37	61.14	61.67	63.03
												5.65 AVG
45.00	NO.	742	501	417	342	279	229	195	180	174	169	165
	PCT.	59.54	84.25	91.12	94.13	95.77	96.72	97.28	97.57	97.82	97.94	98.12
	DT.	9.79	21.07	27.38	34.49	43.01	52.92	62.51	67.92	70.44	72.62	74.51
	STD.	12.96	19.33	24.06	32.51	38.86	47.43	57.48	62.68	63.36	64.02	65.37
												5.69 AVG
50.00	NO.	744	502	416	342	277	221	186	169	159	152	146
	PCT.	59.57	84.34	91.25	94.26	95.95	96.93	97.49	97.79	98.04	98.17	98.40
	DT.	9.77	21.05	27.35	34.54	43.40	54.95	65.68	72.50	77.26	80.93	84.45
	STD.	12.95	19.34	24.09	32.51	39.21	49.01	58.67	63.99	66.75	67.92	70.36
												5.75 AVG
LIMIT	NO.	746	503	419	343	276	219	176	150	126	109	11
	PCT.	59.47	84.43	91.45	94.68	96.46	97.55	98.22	98.60	98.94	99.12	99.92
	DT.	9.74	21.06	27.38	34.59	43.48	55.81	69.93	82.37	98.39	113.94	1138.18
	STD.	12.94	19.34	24.12	32.53	39.22	48.33	61.62	69.23	79.22	92.11	798.41
												6.35 AVG
	AVG.	2.46	2.76	2.36	2.67	2.91	3.11	3.26	3.38	3.51	3.59	4.16

INPUT PARAMETERS T. FERCH

4. Clutter Track Through Requirements

(C) As with the tracking study, the figure given in this section will be for the forward ±60° coverage and for the full sphere coverage. The rearward ±60° coverage and the necessary source data are contained in Section 3 of Appendix B.

a. Pulse Doppler Main Beam Clutter (PDMBC)

(C) Figure B-10 represents the probability of occurrence of the target signal within the PDMBC notch and the range acceleration greater than the indicated value as a function of this notch width. The top most curve labelled "0.0" for range acceleration thus contains all occurrences of the target signal entering the PDMBC notch. This curve therefore gives the probability of the target being within PDMBC notch as a function of the notch width. Using a typical value for notch width in present AI radars (±200 ft/sec), it can be seen that for AI radar coverage, the probability that the target return is within the notch is 0.09 for an average duration of 1.8 seconds. For full sphere coverage (Fig. 17) the probability that the target is within the notch is 0.35 for an average duration of 6.5 seconds. The same interpretation holds for all the graphs from the "Clutter Track Through Requirements" portion of this report (Fig. 16, 39).

(U) Knowing the distribution of the clutter and knowing the average dwell time, the probabilities that the radar can track through this clutter may now be determined. The ability to track through this clutter is highly dependent upon the accelerations experienced during loss of signal. An acceleration over a long period of time, would prevent the radar from coasting through the clutter. This happens because the "memory" for coast through is an extrapolation of the last known velocity. Thus a change in velocity over a period of time would invalidate this extrapolation. The maximum acceleration/time combination a radar can handle depends on the particular radar in question. For that reason, the summary of the data presented herein will show the 0.05 probability that a given acceleration was exceeded while in the clutter and the associated average duration it was exceeded.

i. Range acceleration (Fig. B-10, AI coverage; Fig. B-11, Full coverage.)

(C) In the case of AI radar coverage, the range acceleration exceeded 50 ft/sec^2 while in PDMBC 5% of the time in gimbal limits for a duration of 1.5 seconds.

(C) In the case of full coverage, the range acceleration exceeded 180 ft/sec^2 while in PDMBC 5% of the total time for an average duration of 1.2 seconds.

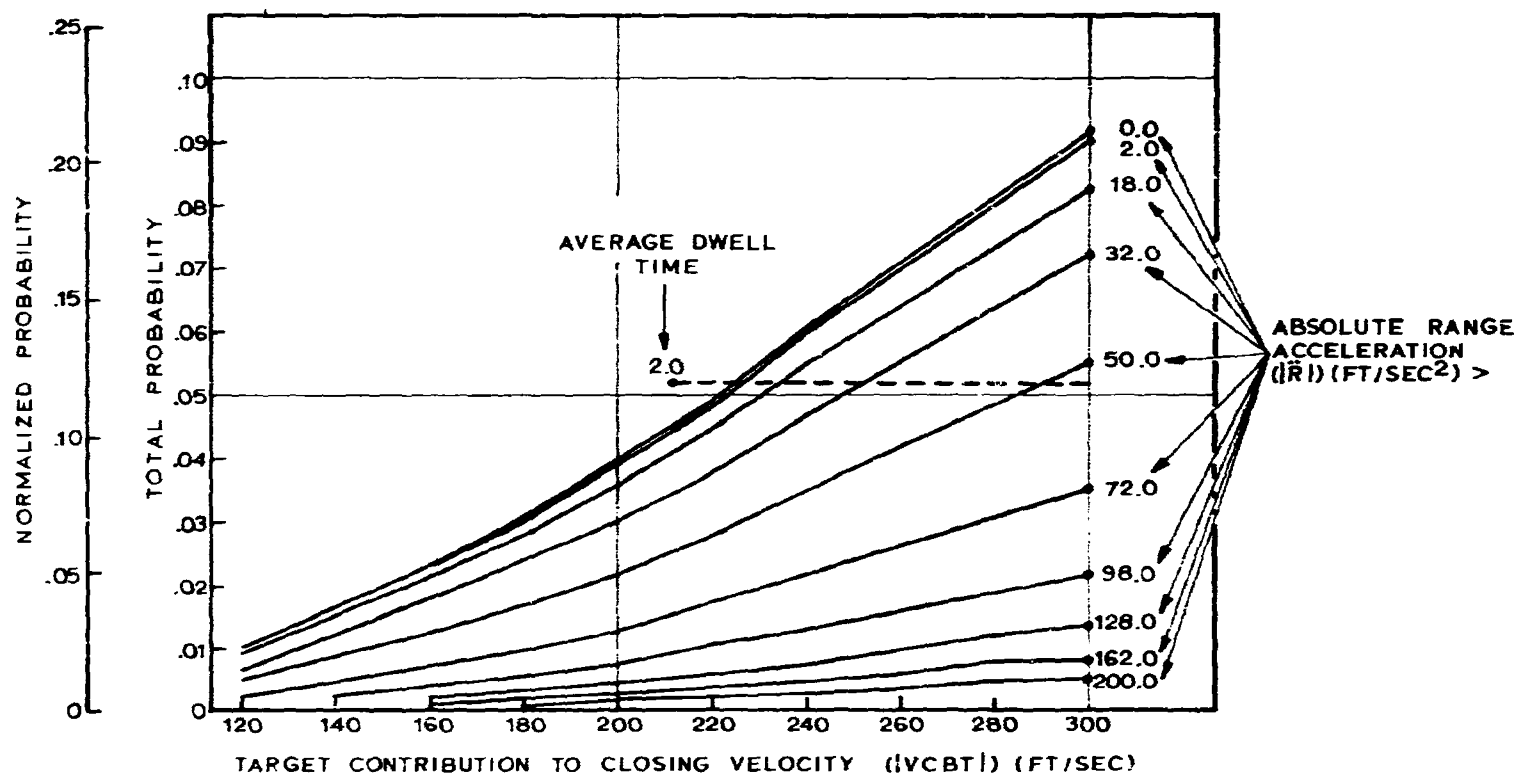


FIG. B-10 - CUMULATIVE PROBABILITY DISTRIBUTION OF TARGET CONTRIBUTION TO CLOSING VELOCITY FOR SEVERAL VALUES OF RANGE ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

ii. Azimuth line of sight acceleration (Fig. B-12, AI coverage; Fig. B-13, full coverage.)

(C) In the case of AI radar coverage, the azimuth line of sight acceleration exceeded $0.3^{o}/sec^2$ while in PDMBC 5% of the time target was in gimbal limits for an average duration of 1.2 seconds.

(C) In the case of full sphere coverage, the azimuth line of sight acceleration exceeded $4.9^{o}/sec^2$ while in PDMBC 5% of the time the target was in gimbal limits for an average duration of 1.5 seconds.

iii. Elevation line of sight acceleration (Fig. B-14, AI coverage; Fig. B-15, Full coverage.)

(C) In the case of the AI radar coverage, the elevation line of sight acceleration exceeded $0.25^{o}/sec^2$ while in PDMBC 5% of the time the target was in gimbal limits for an average duration of 1.1 seconds.

(C) In the case of total coverage, the elevation line of sight acceleration exceeded $4.9^{o}/sec^2$ while in PDMBC 5% of the time the target was in gimbal limits for an average duration of 1.3 seconds.

b. Pulse Doppler f_o Notch

(C) For this study, the f_o notch is shown as a notch of varying widths to account for the difference in notch width among the present AI radars. The notch width used in this report is 150 ft/sec. By use of the graphs and tables, other size notches may be examined.

(C) The top line on each graph shows the probability that the target is in f_o notch as a function of the notch width. Using a notch width of 150 ft/sec. it can be seen that, in the case of the AI radar coverage (Fig. 22) the probability that the target is in the f_o notch is 0.235 for an average duration of 3.8 seconds.

i. Range acceleration (Fig. B-16, AI coverage; Fig. B-17, Full coverage.)

(C) In the case of the AI radar coverage, the range acceleration exceeded 38 ft/sec^2 while in f_o notch 5% of the time the target was in gimbal limits for an average duration of 1.6 seconds.

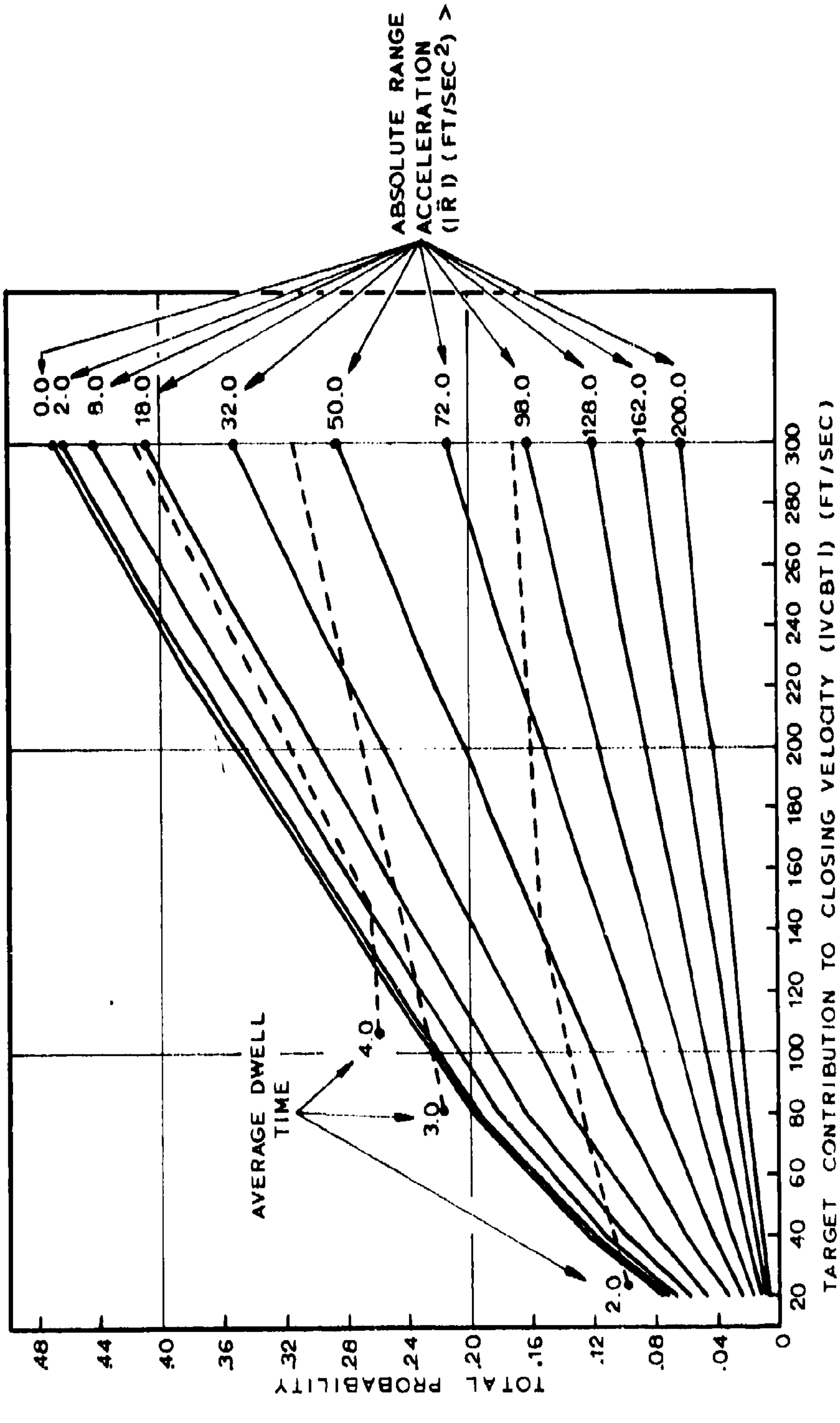


FIG. B-11 – CUMULATIVE PROBABILITY DISTRIBUTION OF TARGET CONTRIBUTION TO CLOSING VELOCITY FOR SEVERAL VALUES OF RANGE ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

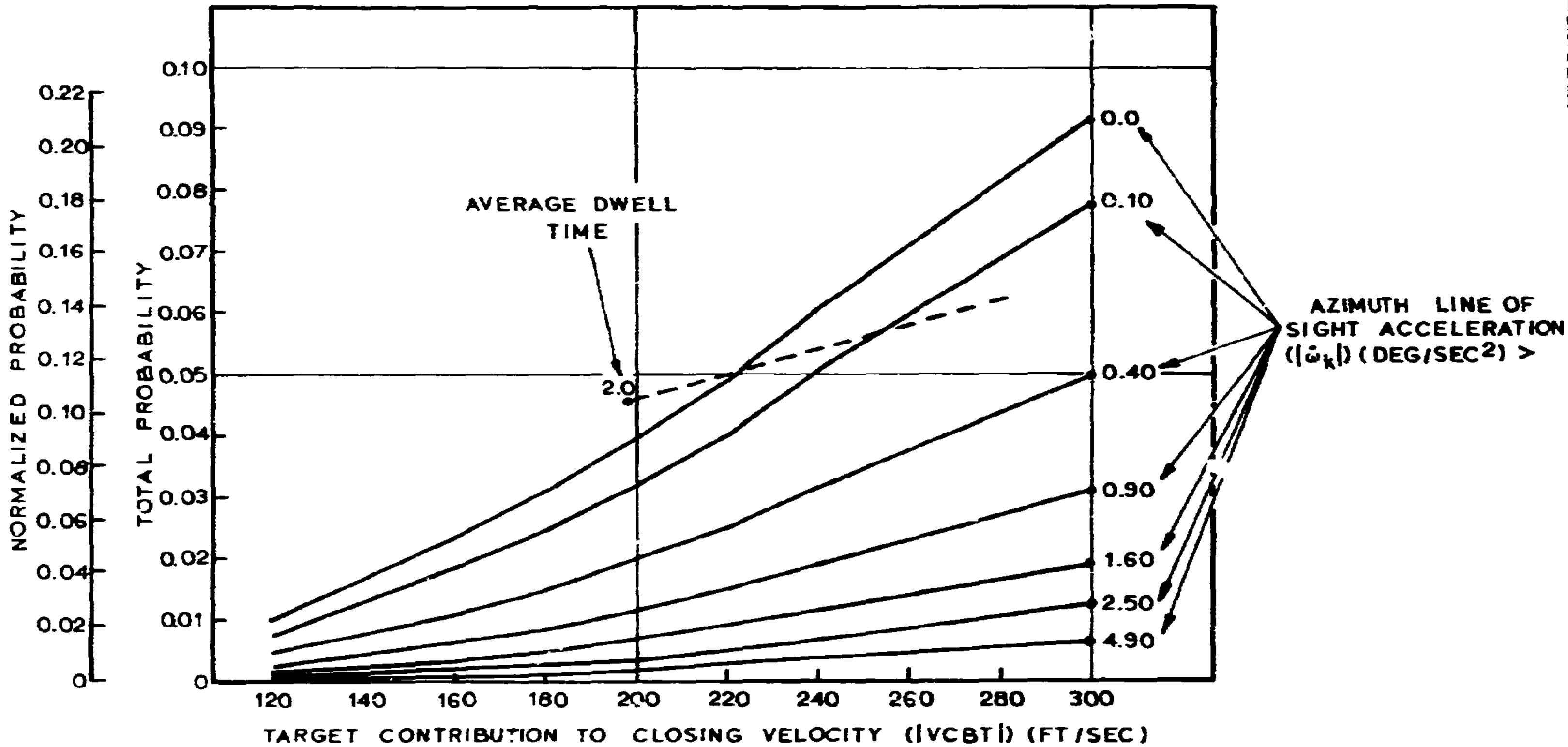


FIG. B-12 - CUMULATIVE PROBABILITY DISTRIBUTION OF TARGET CONTRIBUTION TO CLOSING VELOCITY FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE - 225FT

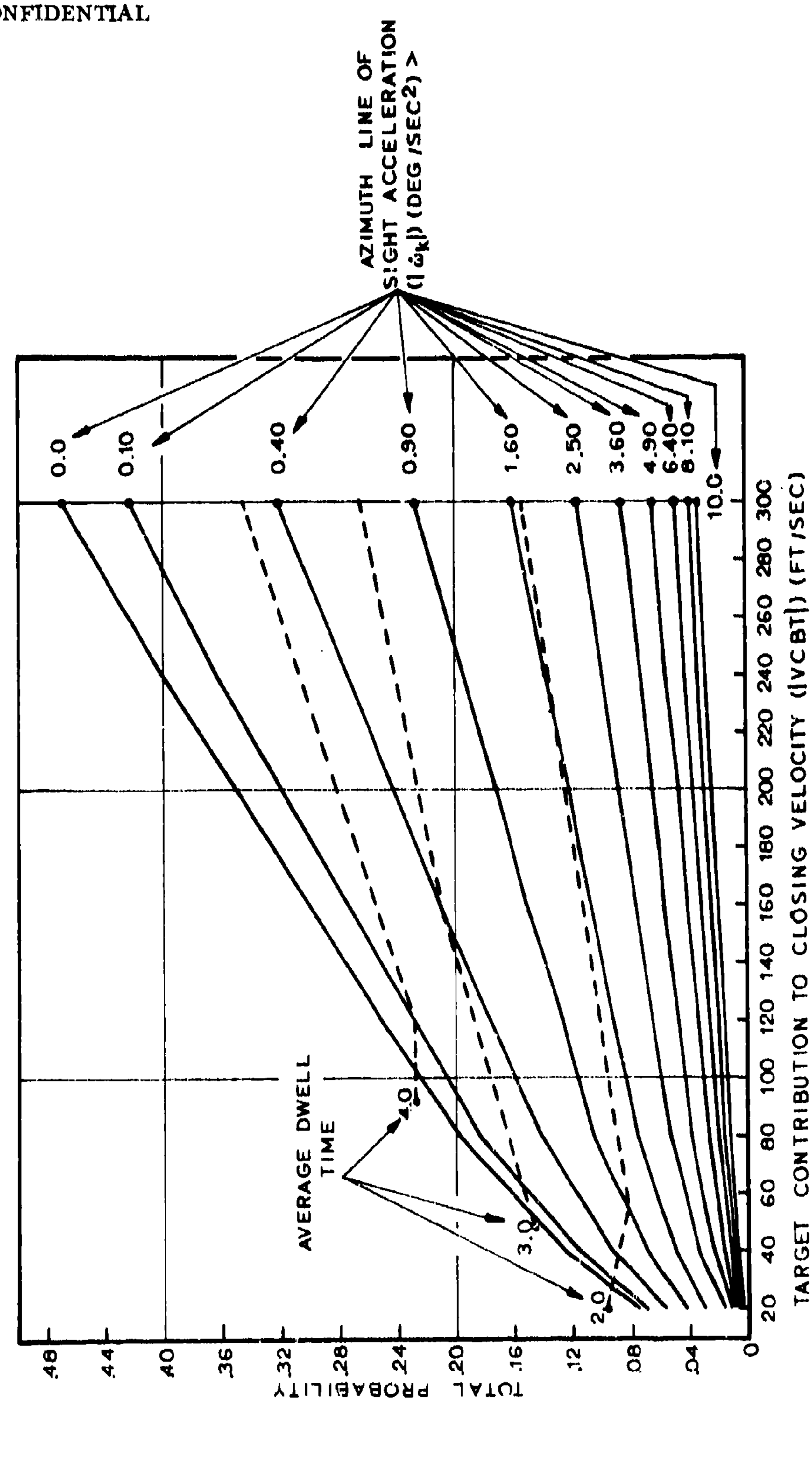


FIG. B-13 – CUMULATIVE PROBABILITY DISTRIBUTION OF TARGET CONTRIBUTION TO CLOSING VELOCITY FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

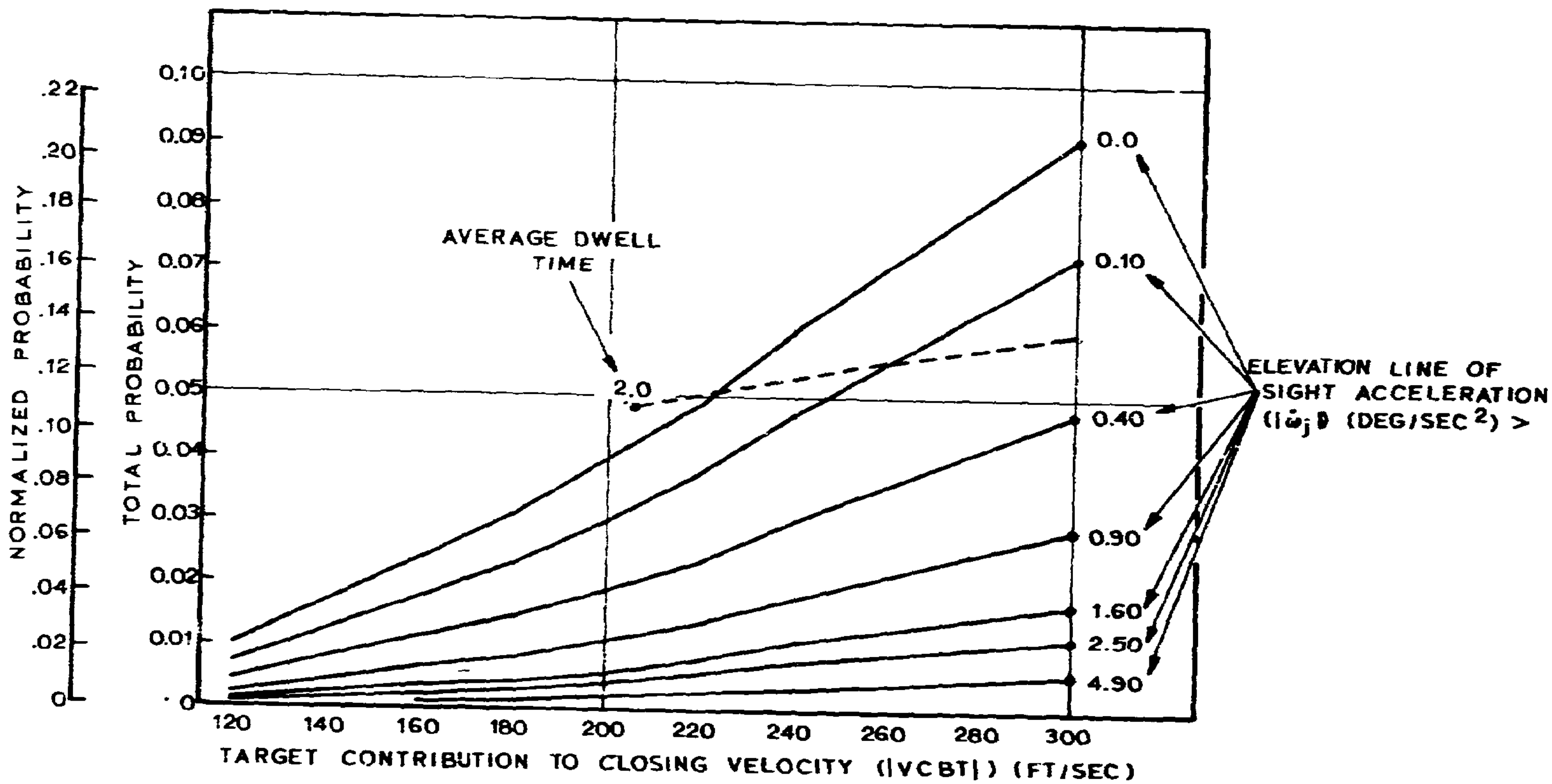


FIG. B-14 – CUMULATIVE PROBABILITY DISTRIBUTION OF TARGET CONTRIBUTION TO CLOSING VELOCITY FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

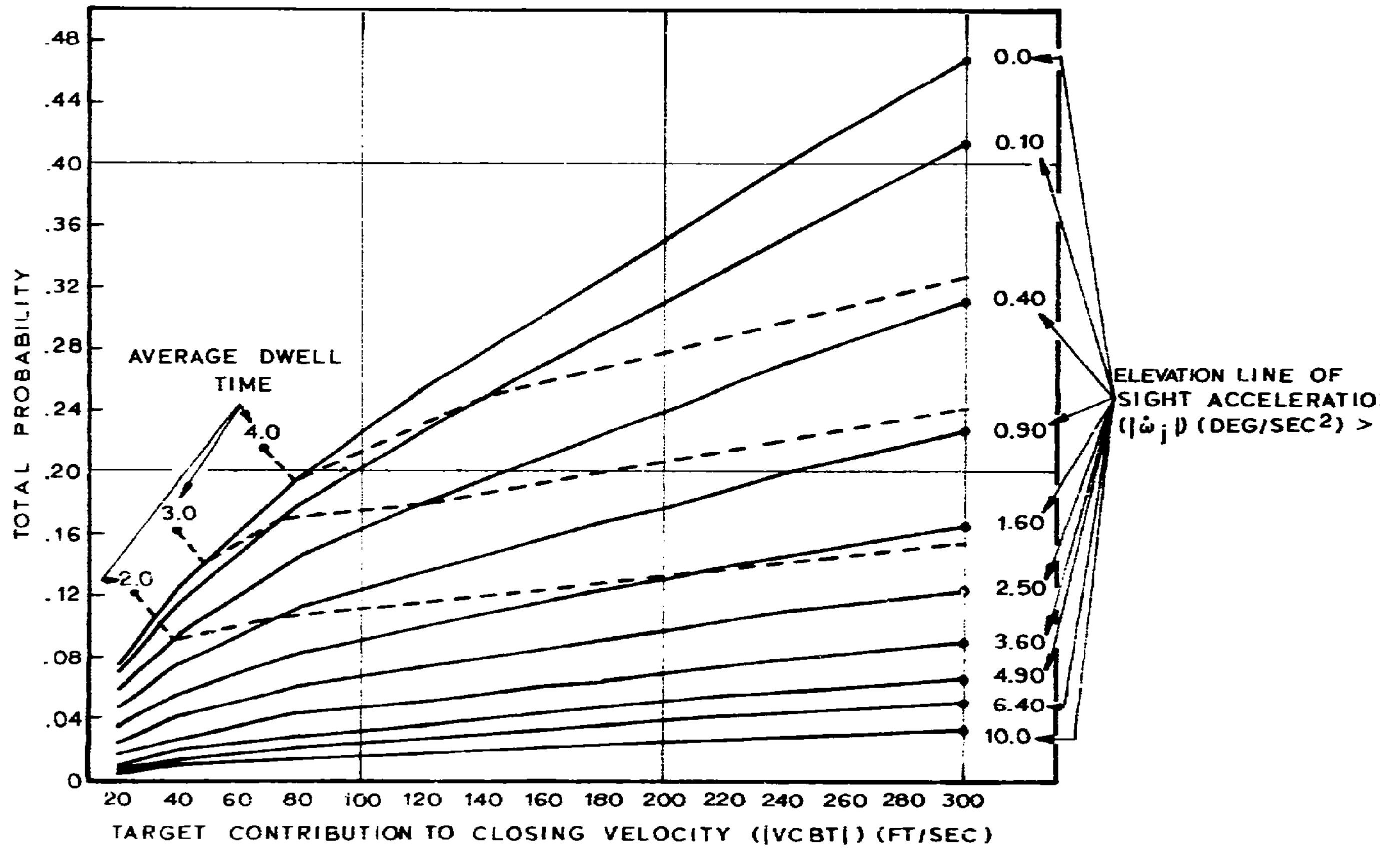


FIG.B-15 - CUMULATIVE PROBABILITY DISTRIBUTION OF TARGET CONTRIBUTION TO CLOSING VELOCITY FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

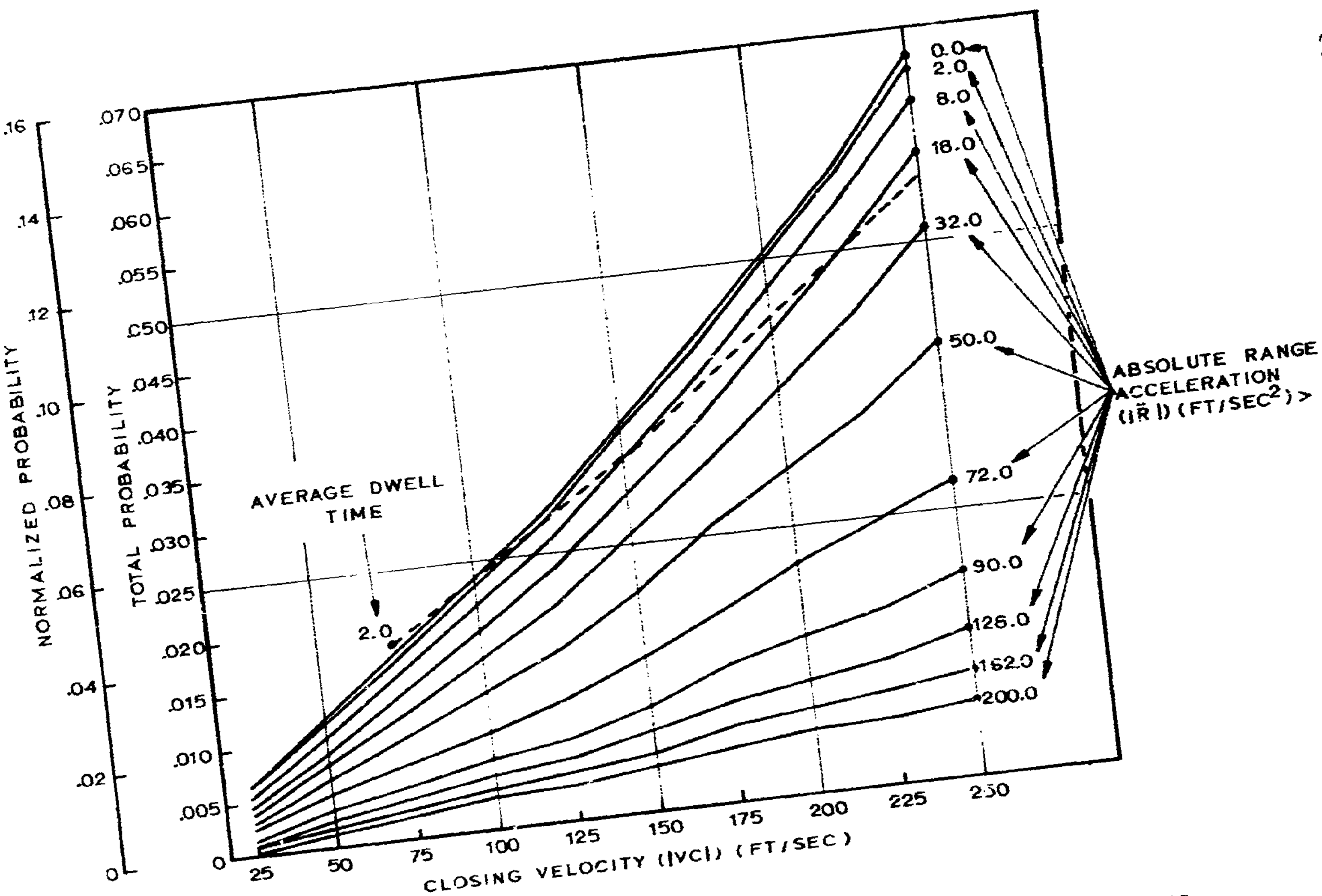


FIG.B-16 – CUMULATIVE PROBABILITY DISTRIBUTION OF CLOSING VELOCITY FOR SEVERAL VALUES OF RANGE ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

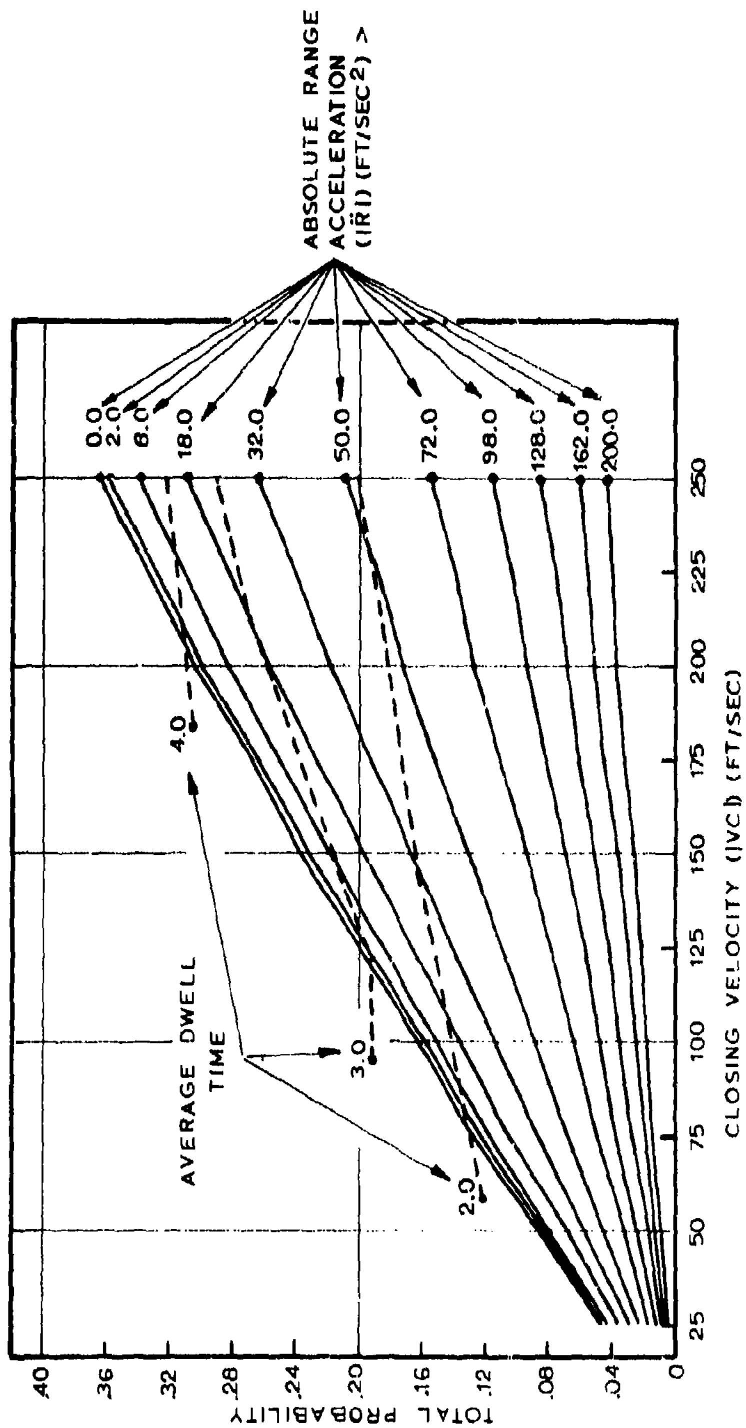


FIG. B-17 - CUMULATIVE PROBABILITY DISTRIBUTION OF CLOSING VELOCITY FOR SEVERAL VALUES OF RANGE ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

(C) In the case of full coverage, the range acceleration exceeded 128 ft/sec^2 while in f_o notch of 5% of the total time for an average duration of 1.2 seconds.

ii. Azimuth line of sight acceleration (Fig. B-18, AI coverage; Fig. B-19, Full coverage.)

(C) In the case of the AI radar coverage, the azimuth line of sight acceleration exceeded 0.3^o/sec^2 while in f_o notch 5% of time target was in gimbal limits for an average duration of 1.5 seconds.

iii. Elevations line of sight acceleration (Fig. B-20, AI coverage; Fig. B-21, Full coverage.)

(C) In the case of AI radar coverage, the elevations line of sight acceleration exceeded .3^o/sec^2 while in f_o notch 5% of the time the target was in gimbal limits for an average duration of 1.7 seconds.

(C) In the case of full coverage, the elevations line of sight acceleration exceeded 3^o/sec^2 while in f_o notch 5% of the total time for an average duration of 1.3 seconds.

c. Pulse Main Beam Clutter (PMBC)

(C) For analysis in this section, the range gate width is taken as 300 ft. This means that PMBC is defined as occurring if the target is within 300 ft. of the leading edge of the ground return.

(C) For AI radar coverage, the probability that the target is in PMBC is .005 for an average duration of 1.12 seconds. In terms of normalized probability (normalized to the AI radar coverage), the probability of the target in PMBC is .0117. This probability is less than the .05 criterion used in the previous analyses.

(C) For full sphere coverage, the probability of the target being in PMBC is again less than the 0.05 criterion, that is, 0.015 for an average duration of 1.31 seconds.

(C) Analysis of the tracking accelerations for PMBC in the same manner as the PDMBC and f_o notch is not possible. Analysis using a more stringent criterion could be made. In order to keep the comparison on pulse and pulse doppler clutter on the same level, the PMBC tracking accelerations evaluated with the 5% criteria are zero. The application of a more stringent criterion is left up to the reader and, for that purpose, the graphs of the accelerations are given in Figs. B-22 through B-27.

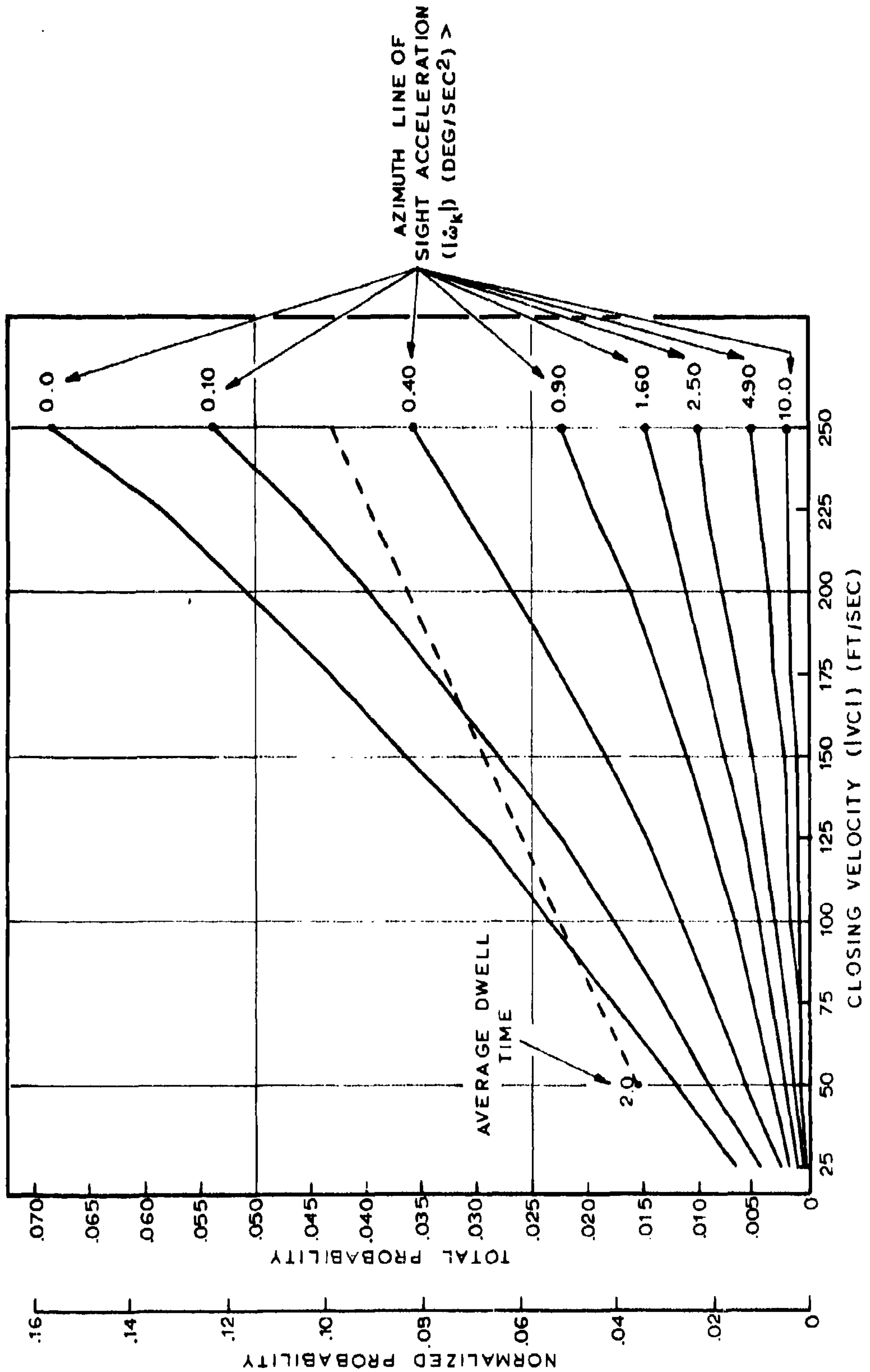


FIG. B-18 - CUMULATIVE PROBABILITY DISTRIBUTION OF CLOSING VELOCITY FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225FT

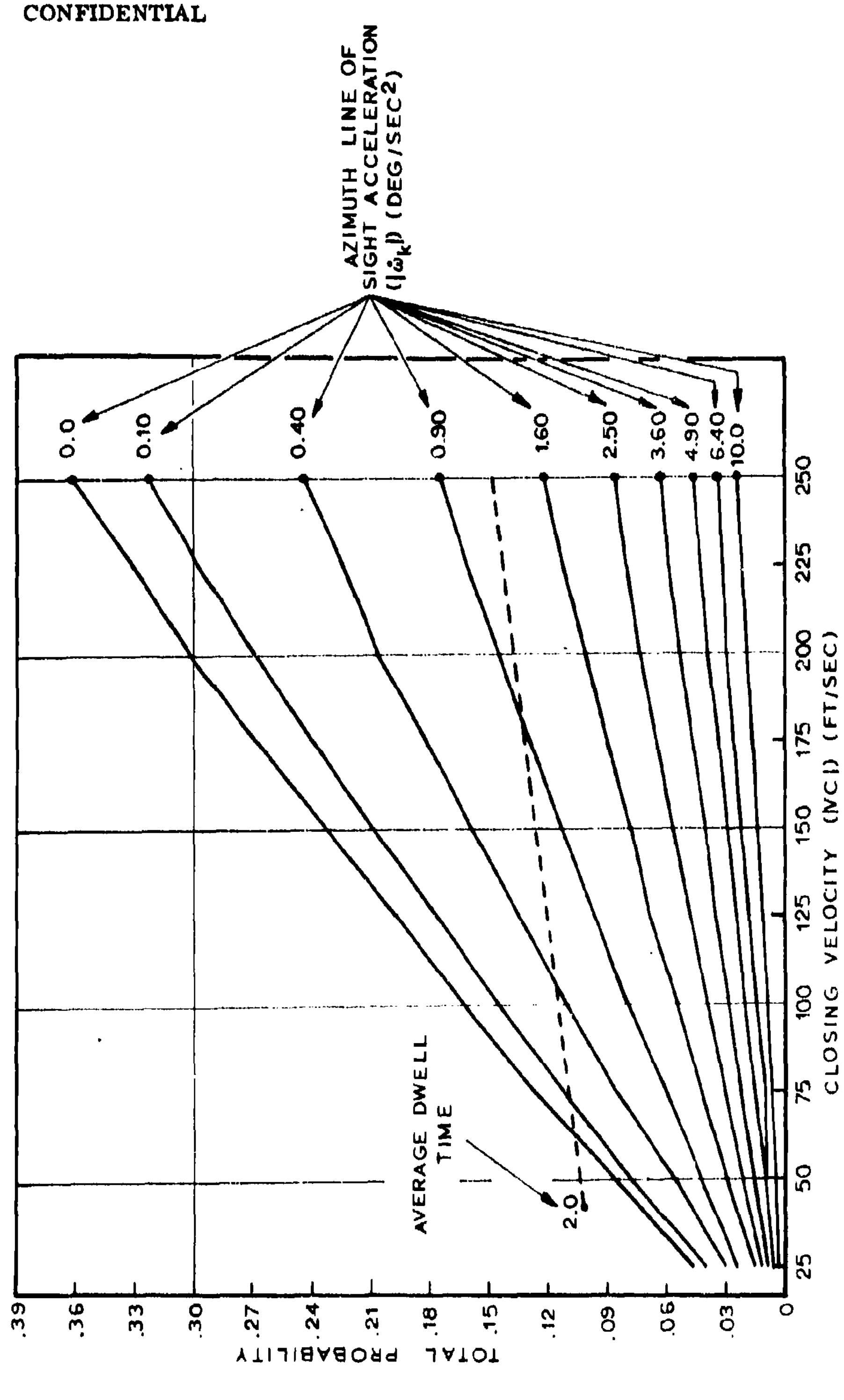


FIG. B-19 - CUMULATIVE PROBABILITY DISTRIBUTION OF CLOSING VELOCITY FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE - 225 FT

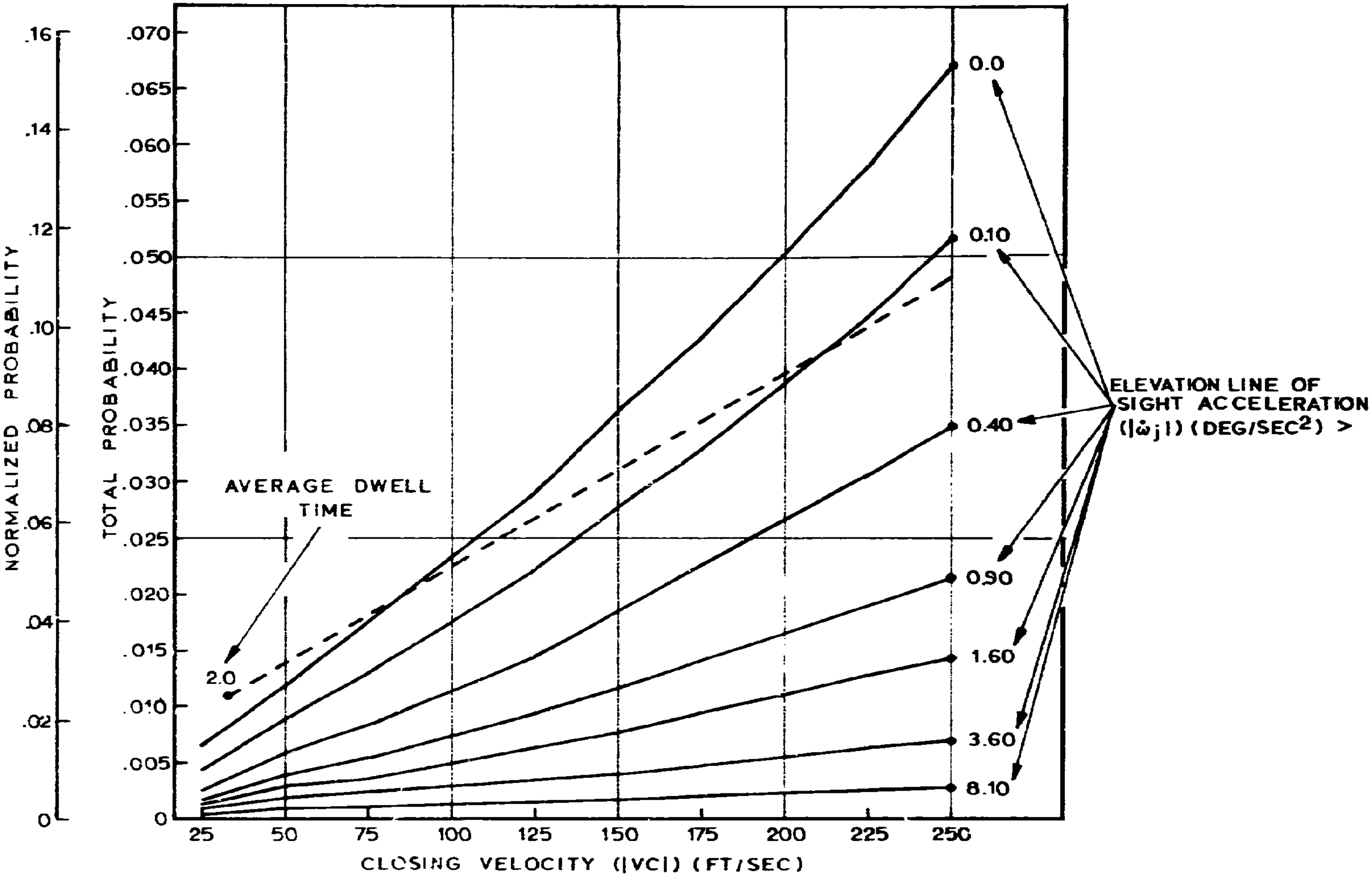


FIG. B-20 - **CUMULATIVE PROBABILITY DISTRIBUTION OF CLOSING VELOCITY FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT**

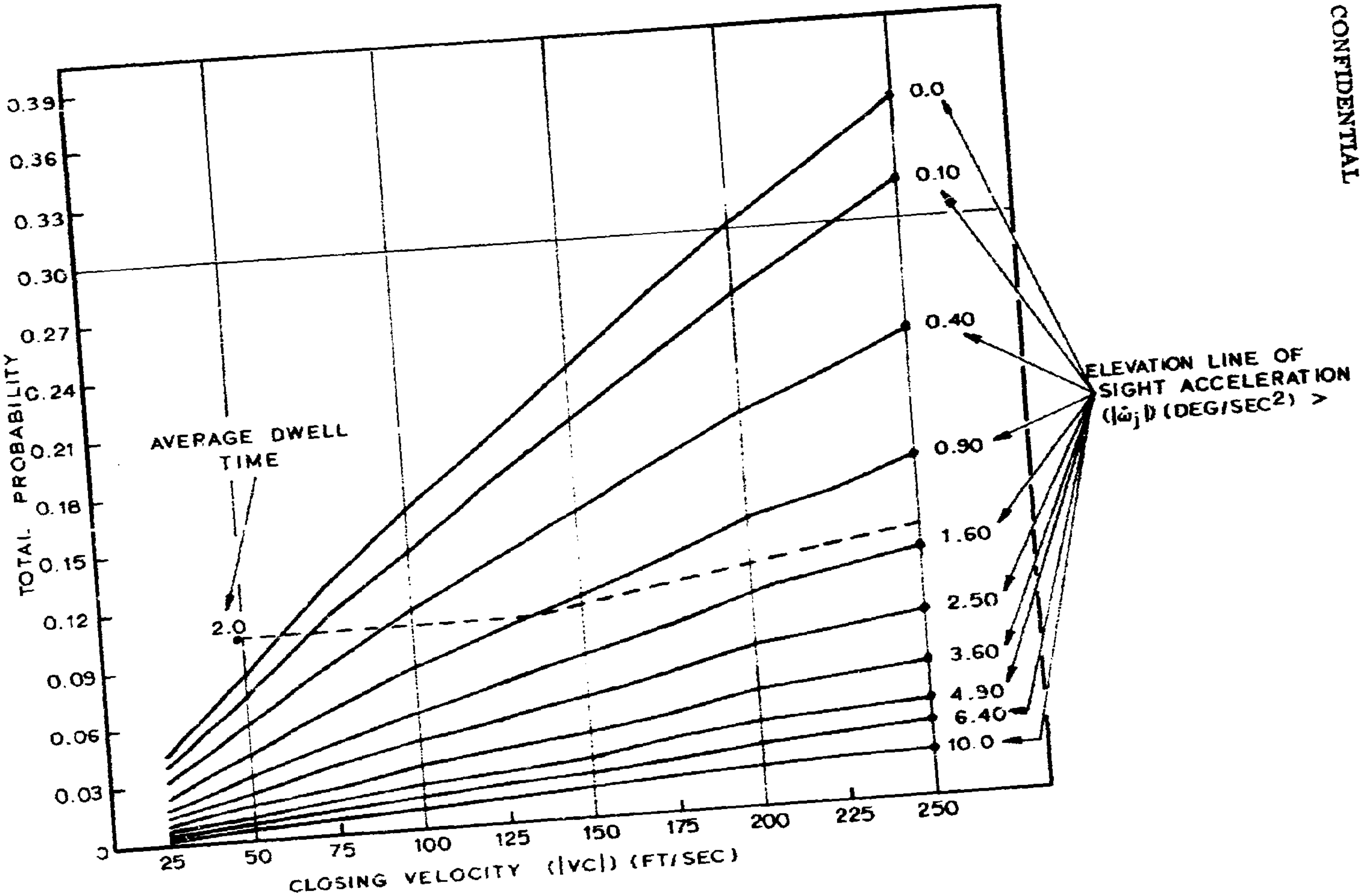


FIG. B-21- CUMULATIVE PROBABILITY DISTRIBUTION OF CLOSING VELOCITY FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

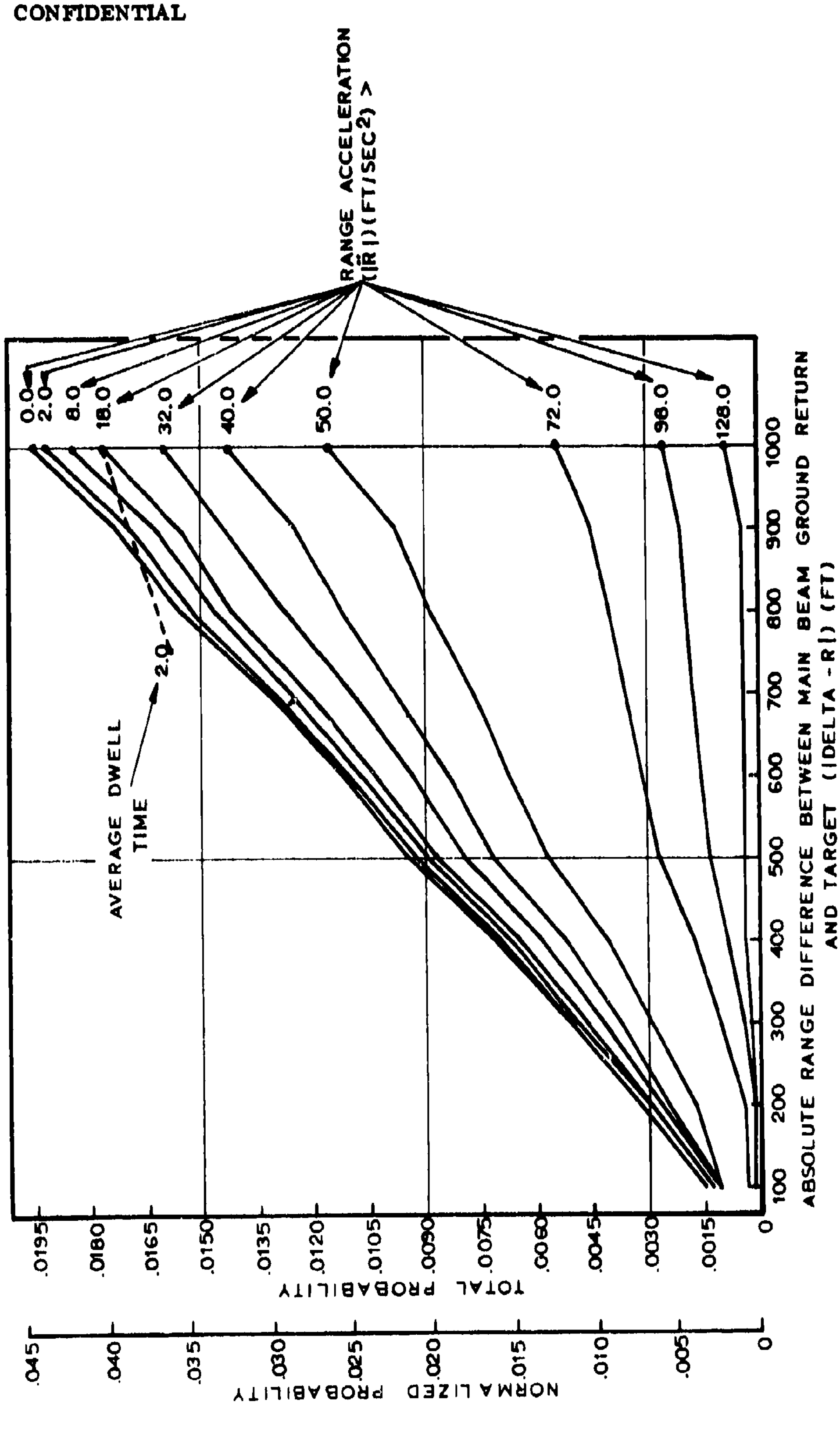


FIG. B-22 - CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE DIFFERENCE BETWEEN MAIN BEAM GROUND RETURN AND TARGET FOR SEVERAL VALUES OF RANGE ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

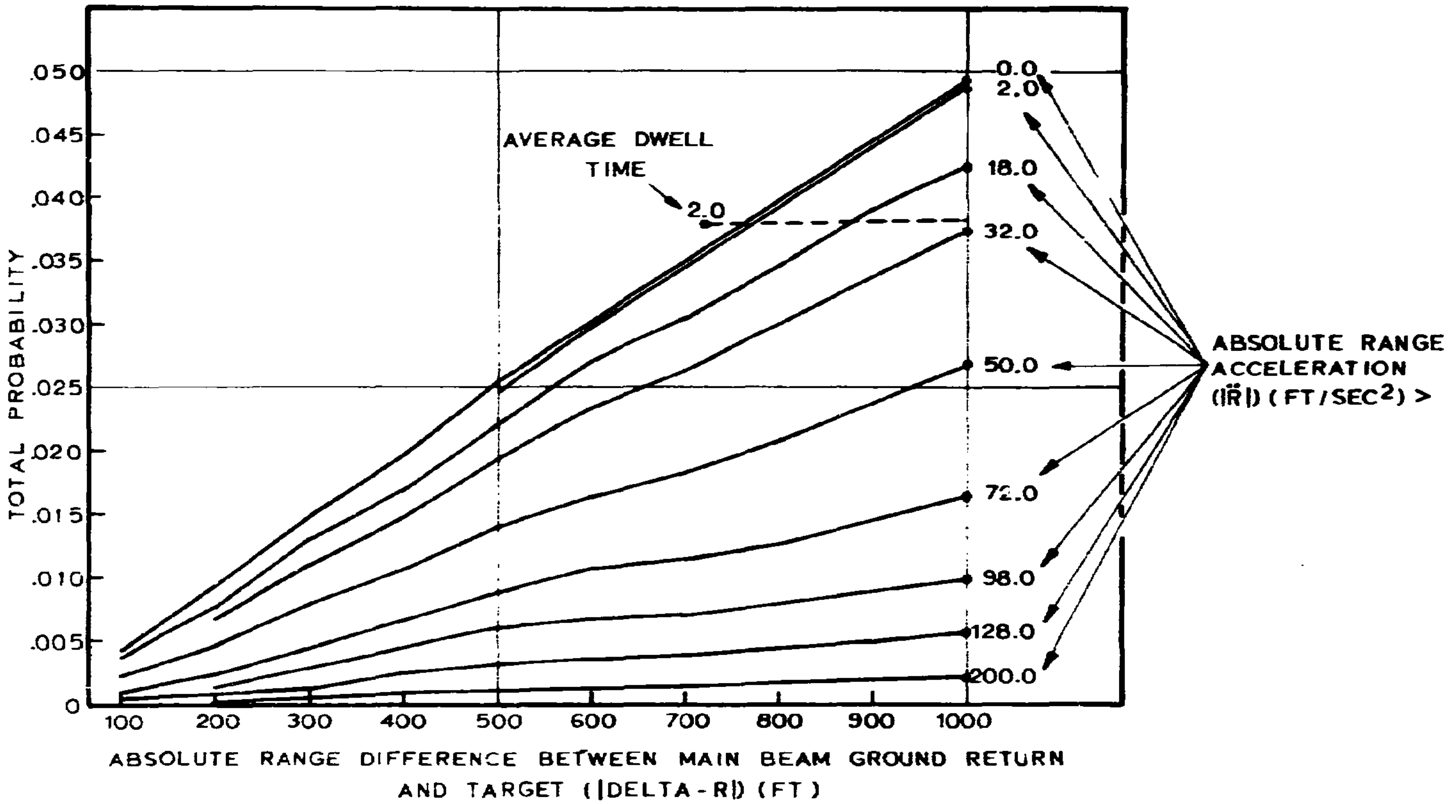


FIG. B-23 - CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE DIFFERENCE BETWEEN MAIN BEAM GROUND RETURN AND TARGET FOR SEVERAL VALUES OF RANGE ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

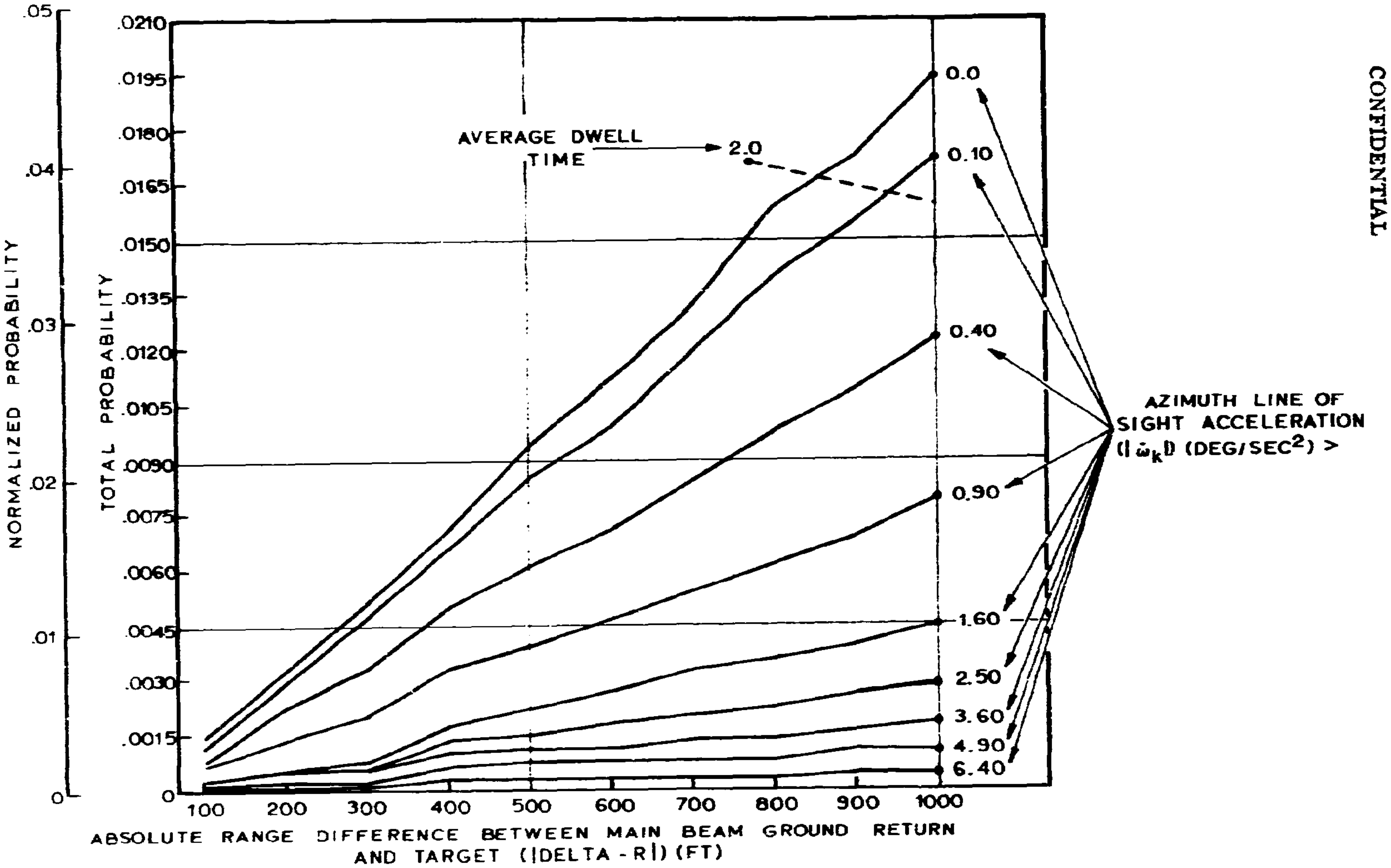


FIG.B-24 - CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE DIFFERENCE BETWEEN MAIN BEAM GROUND RETURN AND TARGET FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE - 225 FT

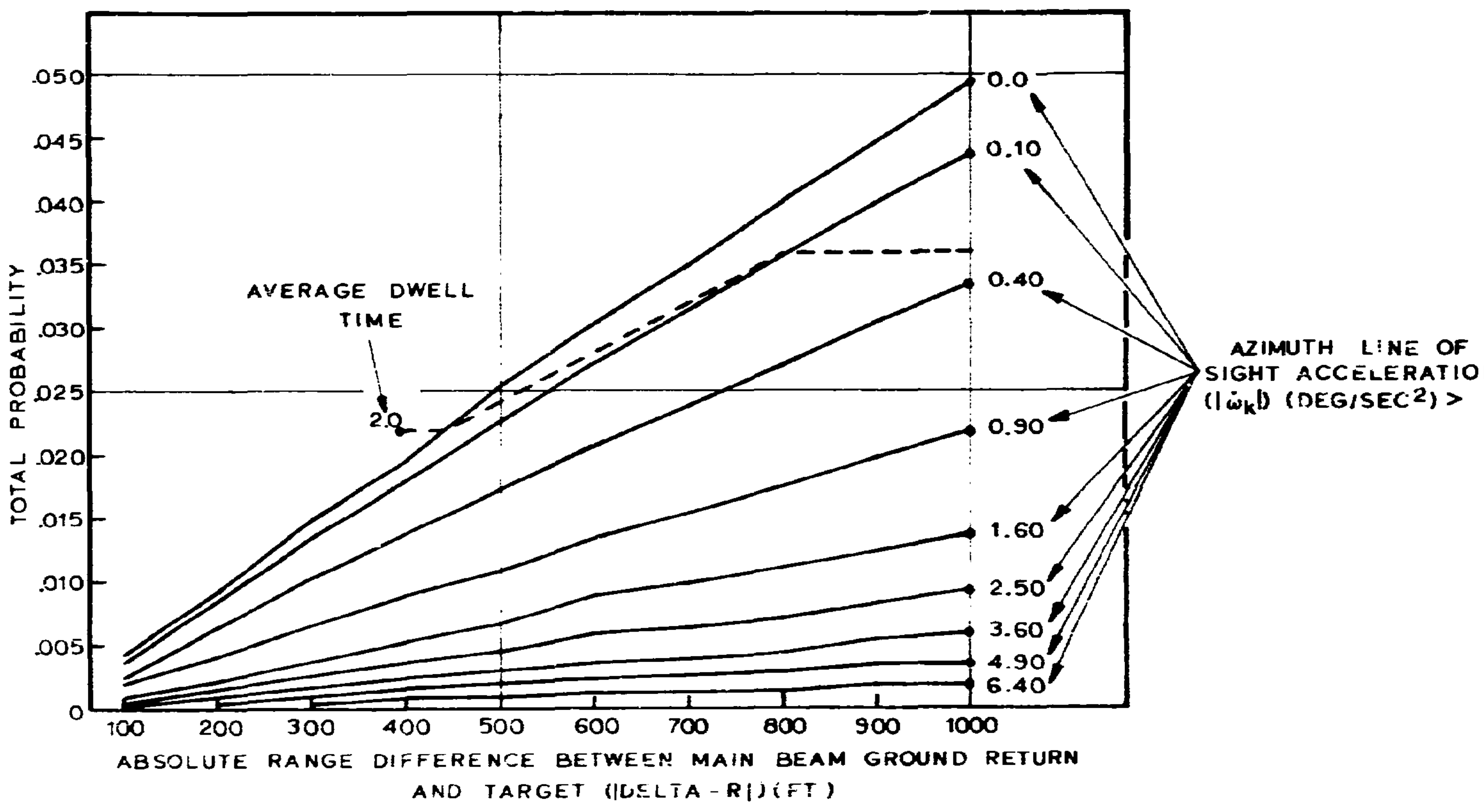


FIG. B-25 - CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE DIFFERENCE BETWEEN MAIN BEAM GROUND RETURN AND TARGET FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE - 225 FT

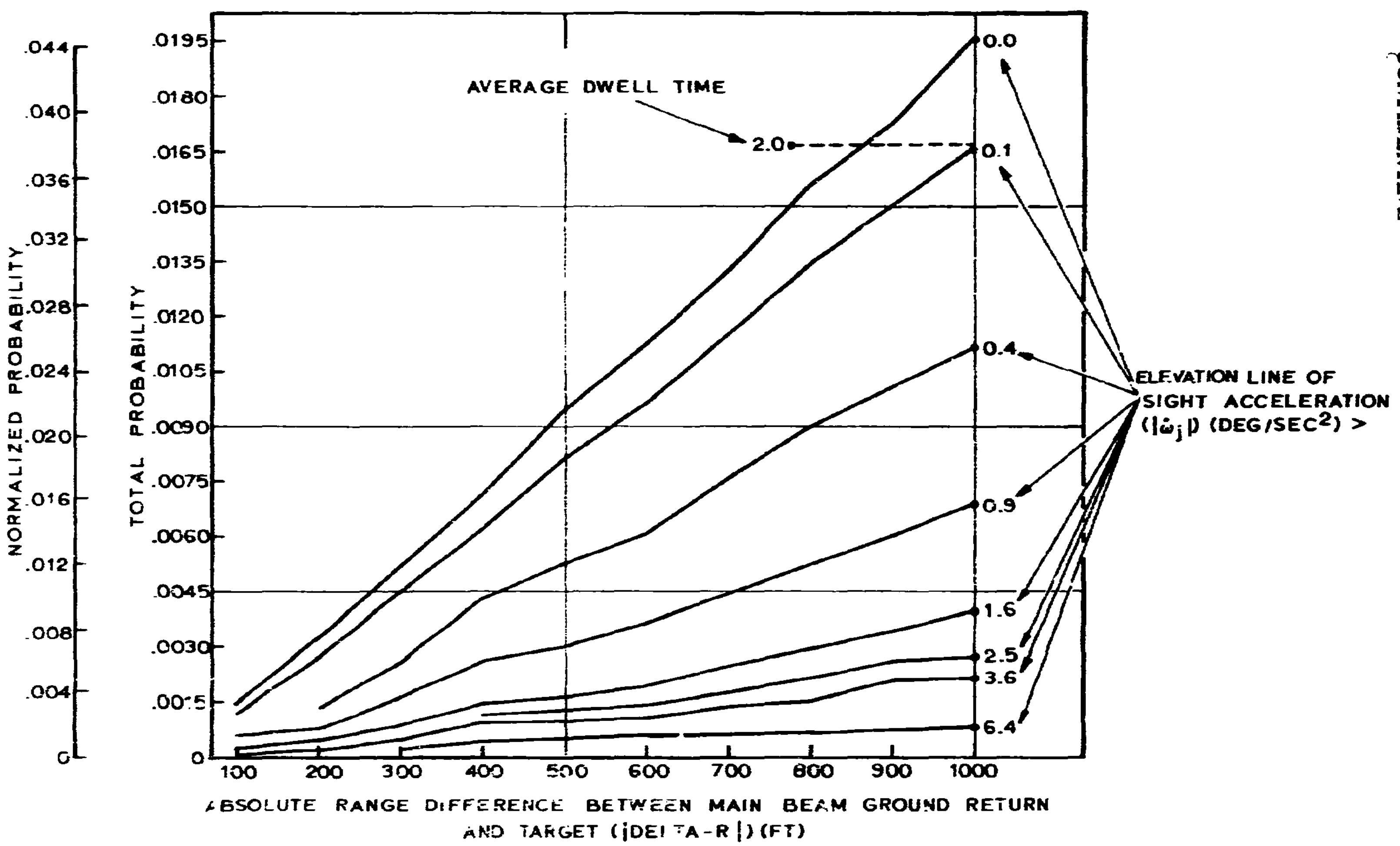


FIG. B-26 – CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE DIFFERENCE BETWEEN MAIN BEAM GROUND RETURN AND TARGET FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

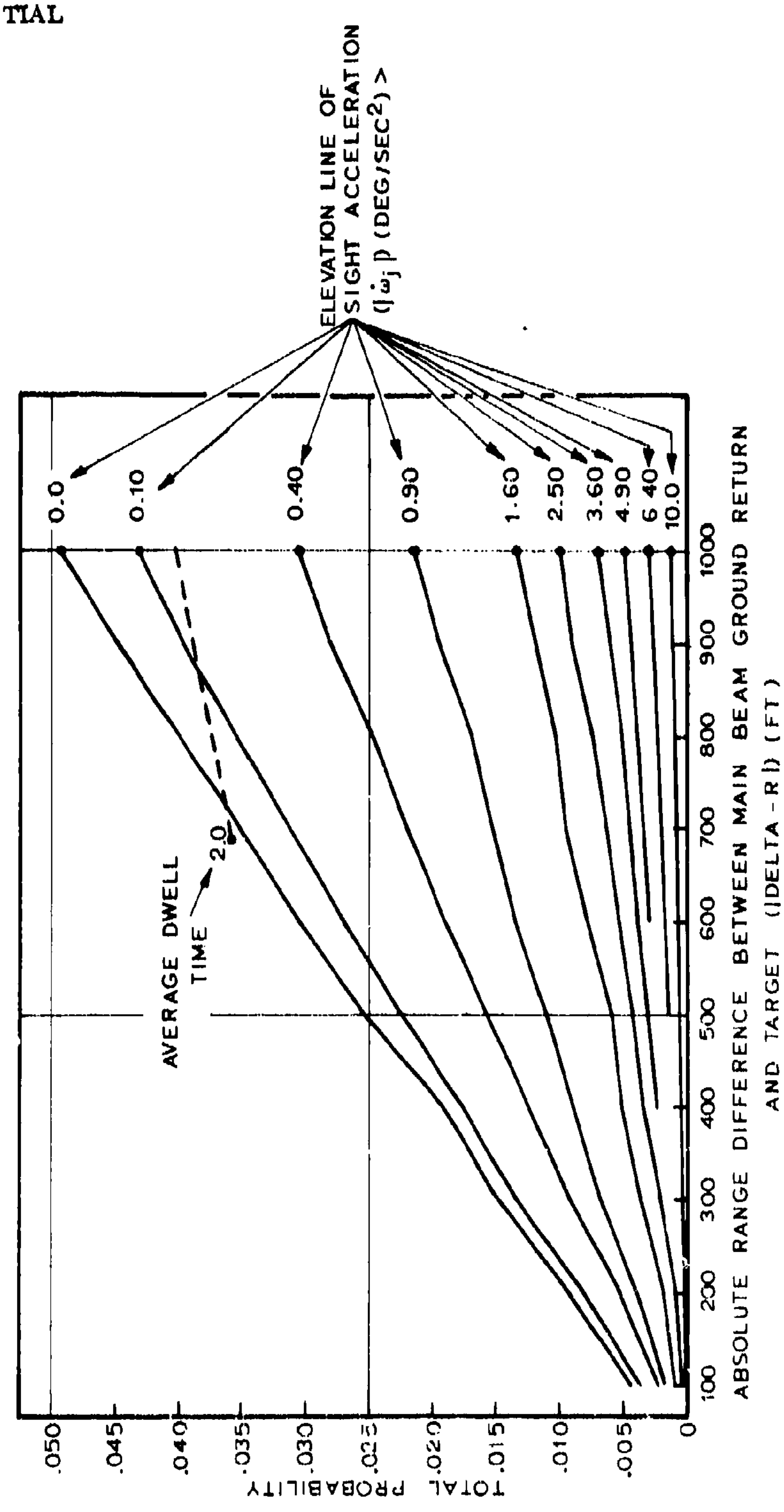


FIG. B-27 - CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE DIFFERENCE BETWEEN MAIN BEAM GROUND RETURN AND TARGET FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

d. Pulse Altitude Line (PAL)

(C) For the purpose of this discussion, the PAL will be taken as having a width of ±1000 ft, which is typical of the clutter return from the ground below the aircraft. This 1000 ft. altitude return further assumes that the strength of the target return is less than the altitude return. The width and strength of the altitude return is dependent upon the altitude of the fighter, the antenna pattern, the look down angle, and the ground reflectivity. For a given width of the altitudes return calculated by the preceding parameters Fig. B-28 through B-33 are still valid and can be used to calculate the track through capability of a particular radar.

(C) For AI radar coverage, the probability that the target is in PAL is 0.078 for an average duration of 3.9 seconds.

(C) For full coverage, the probability that the target is in PAL is 0.086 for an average duration of 4.8 seconds.

i. Range Acceleration (Fig. B-28, AI coverage; Fig. B-29, Full Coverage.)

(C) In the case of AI radar coverage, the range acceleration exceeded 40 ft/sec^2 while in PAL, 5% of the time the target was in gimbal limits for an average duration of 2.4 seconds.

(C) In the case of full coverage, the range accelerations exceeded 50 ft/sec^2 while in PAL, 5% of the total time for an average duration of 2.4 seconds.

ii. Azimuth Line of sight Acceleration (Fig. B-30, AI coverage, Fig. B-31, Full Coverage.)

(C) In the case of AI radar coverage, the azimuth line of sight acceleration exceeded .4°/sec^2 while in PAL, 5% of the time the target was in gimbal limits for an average duration of 2.8 seconds.

(C) In the full coverage case, the azimuth line of sight acceleration exceeded 0.65°/sec^2 while in PAL, 5% of the total time for an average duration of 2.3 seconds.

iii. Elevation Line of Sight Acceleration (Fig. B-32, AI coverage; Fig. B-33, Full Coverage.)

(C) In the case of AI radar coverage, the elevation line of sight acceleration exceeds 0.35°/sec^2 while in PAL,

5% of the time the target was in gimbal limits for an average duration of 2.5 seconds.

(C) In the full coverage case, the elevation line of sight acceleration exceeded $0.7^{\circ}/sec^2$ while in PAL, 5% of the total time for an average duration of 2.4 seconds.

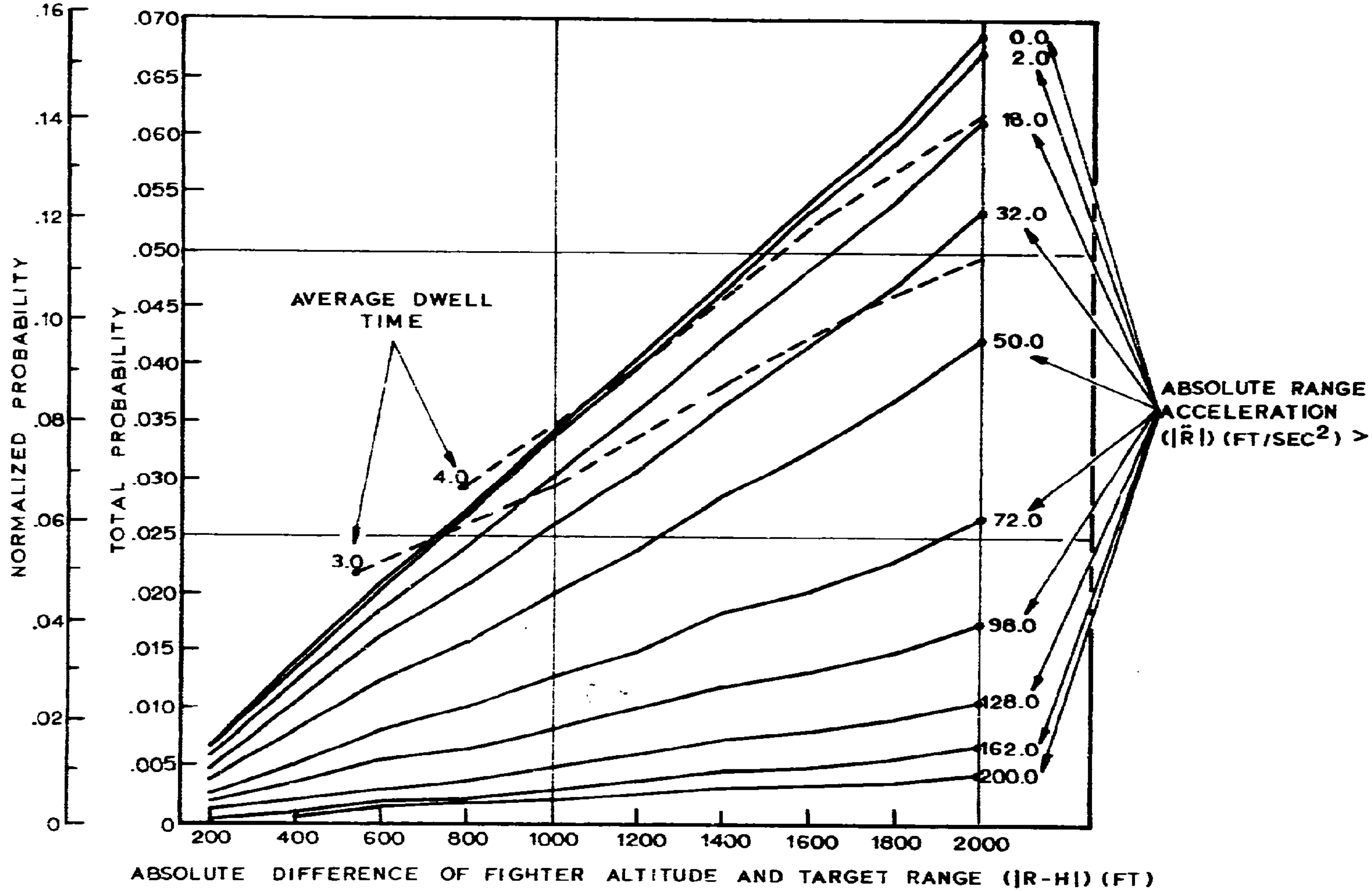


FIG. B-28 - CUMULATIVE PROBABILITY DISTRIBUTION OF DIFFERENCE OF FIGHTER ALTITUDE AND TARGET RANGE FOR SEVERAL VALUES OF RANGE ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

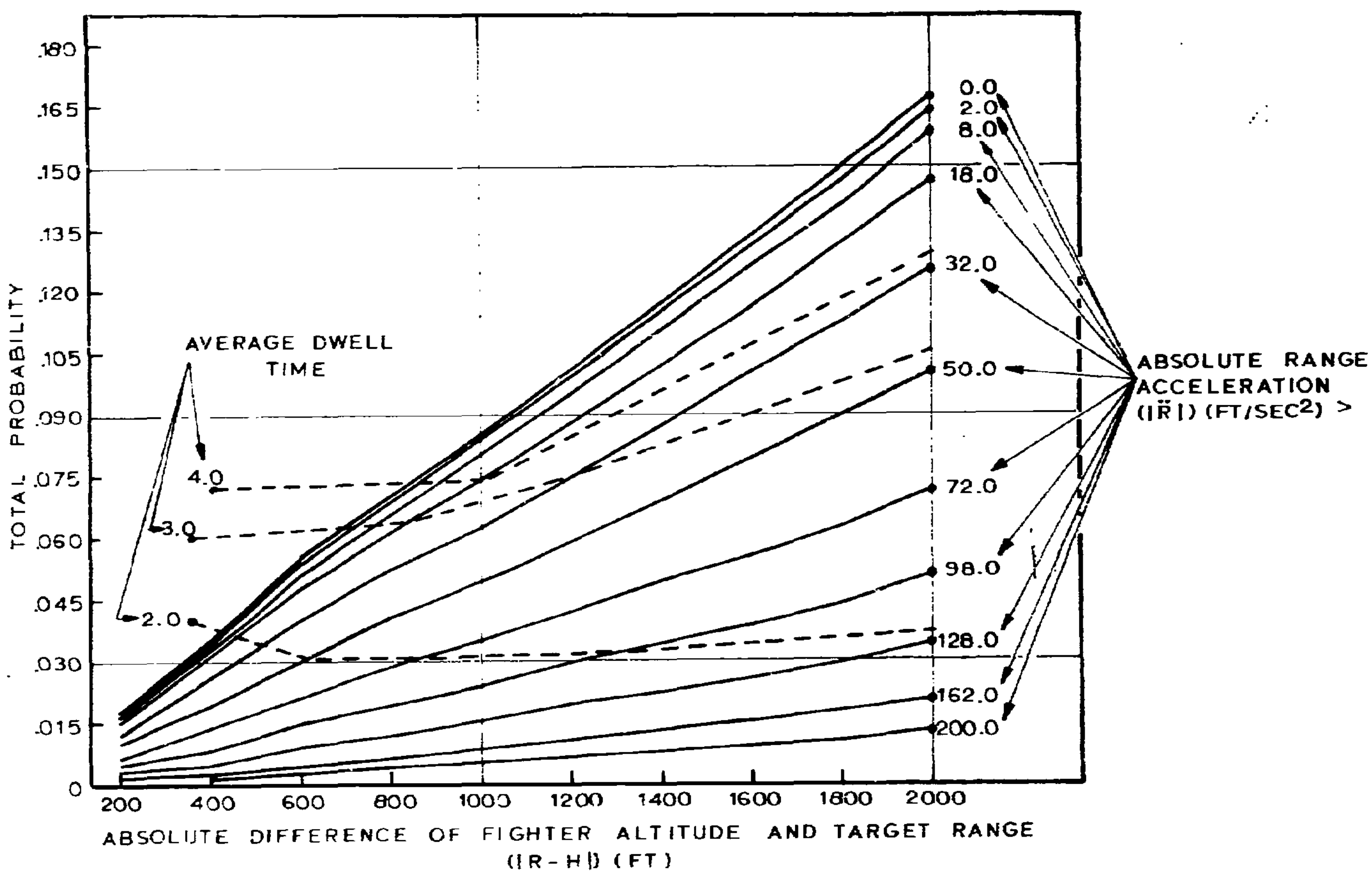


FIG. B-29 - CUMULATIVE PROBABILITY DISTRIBUTION OF DIFFERENCE OF FIGHTER ALTITUDE AND TARGET RANGE FOR SEVERAL VALUES OF RANGE ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

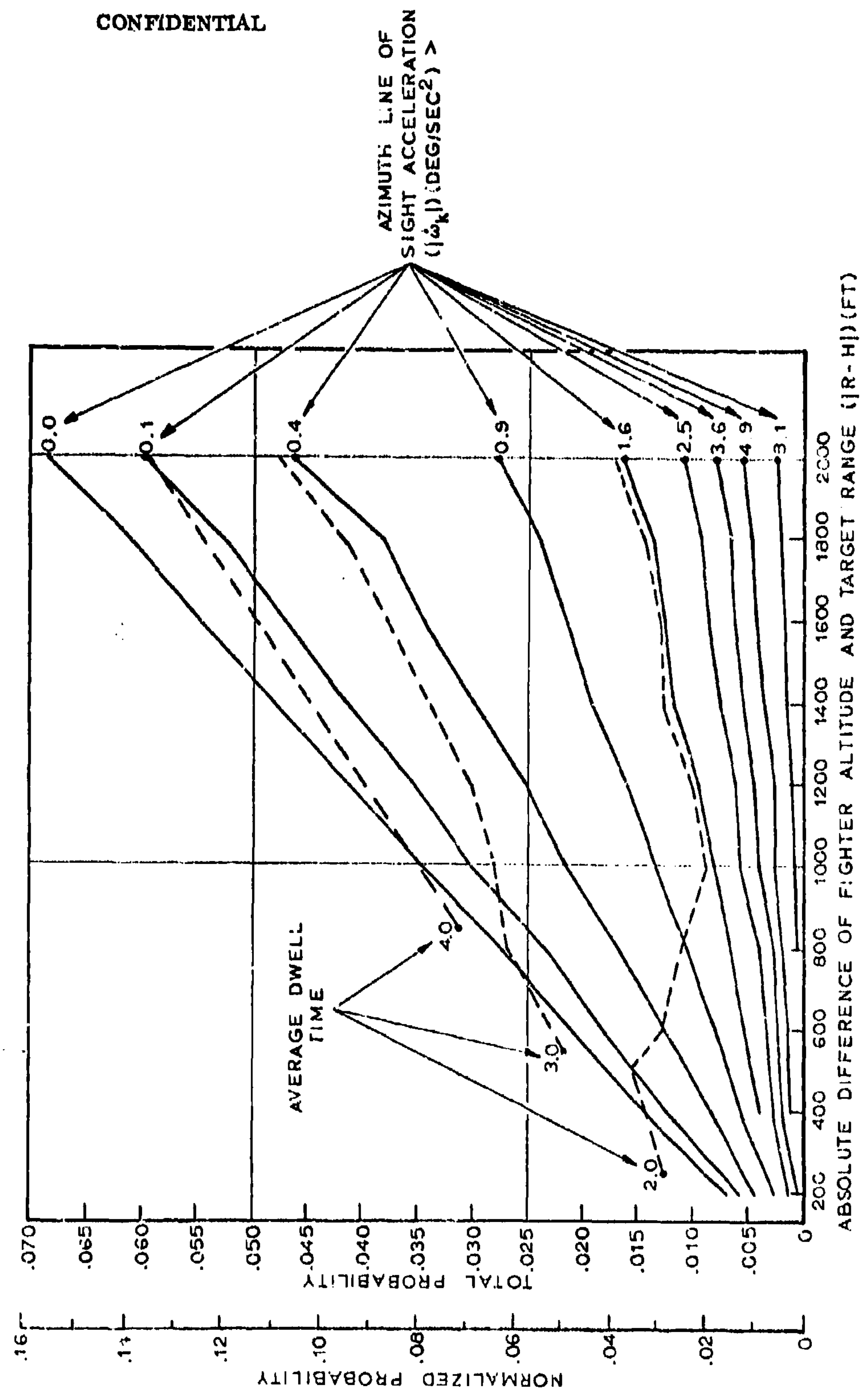


FIG.B-30 - CUMULATIVE PROBABILITY DISTRIBUTION OF ABSOLUTE DIFFERENCE OF FIGHTER ALTITUDE AND TARGET RANGE FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

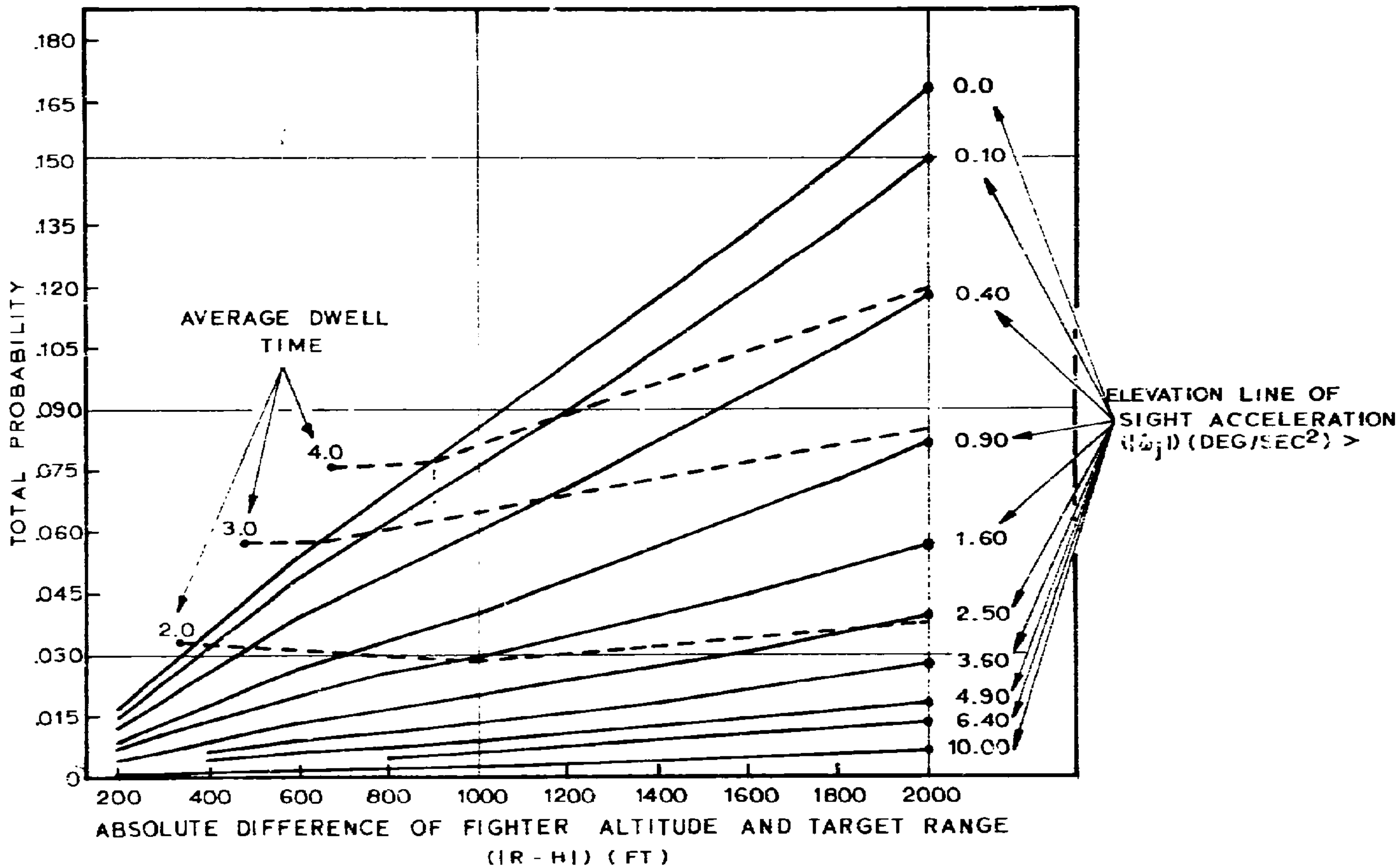


FIG. B-31 - CUMULATIVE PROBABILITY DISTRIBUTION OF DIFFERENCE OF FIGHTER ALTITUDE AND TARGET RANGE FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

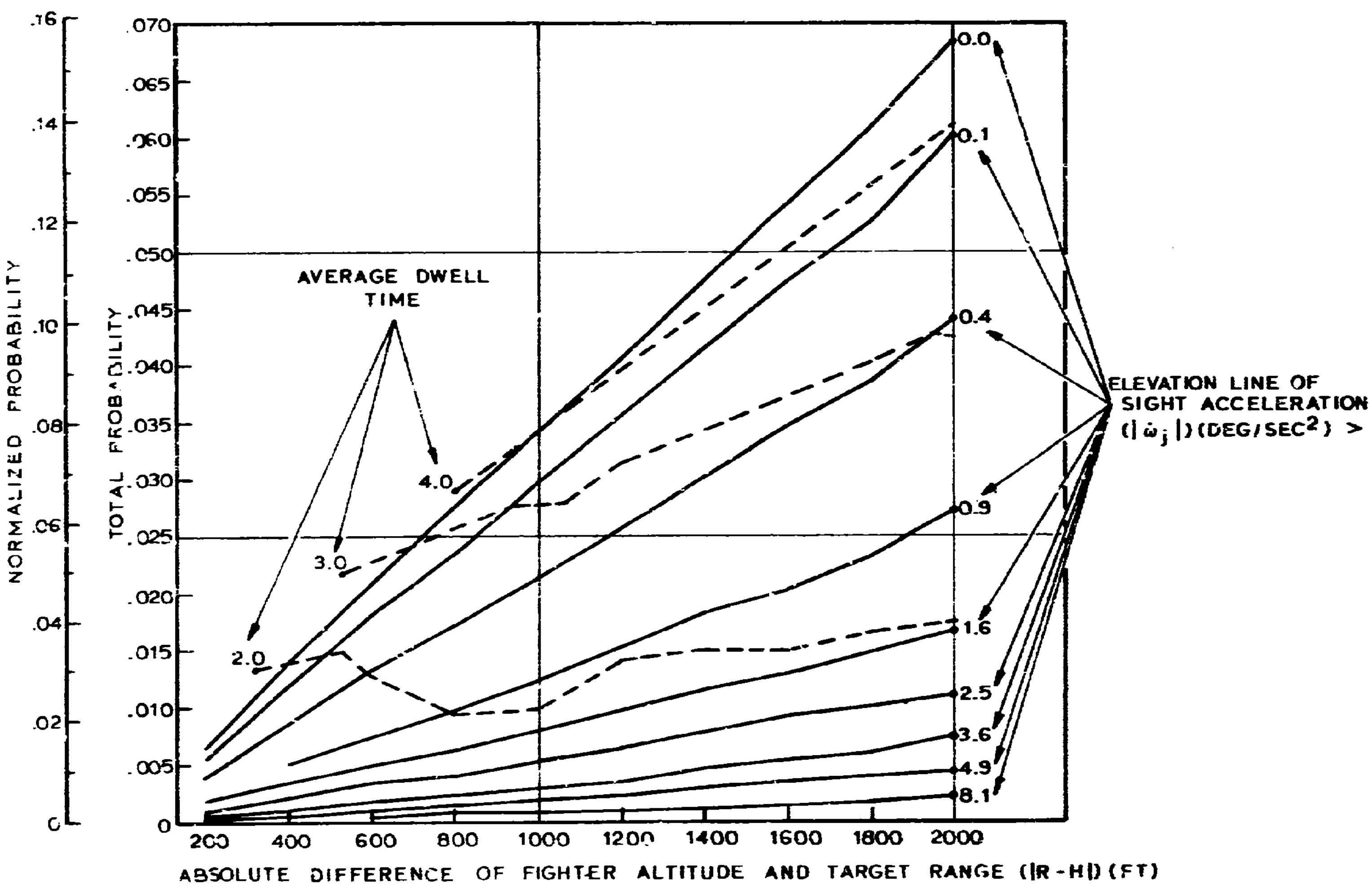


FIG. B-32 - CUMULATIVE PROBABILITY DISTRIBUTION OF ABSOLUTE DIFFERENCE OF FIGHTER ALTITUDE AND TARGET RANGE FOR SEVERAL VALUES OF ELEVATION LINE OF SIGHT ACCELERATION FOR AI RADAR COVERAGE AND MINIMUM RANGE = 225 FT

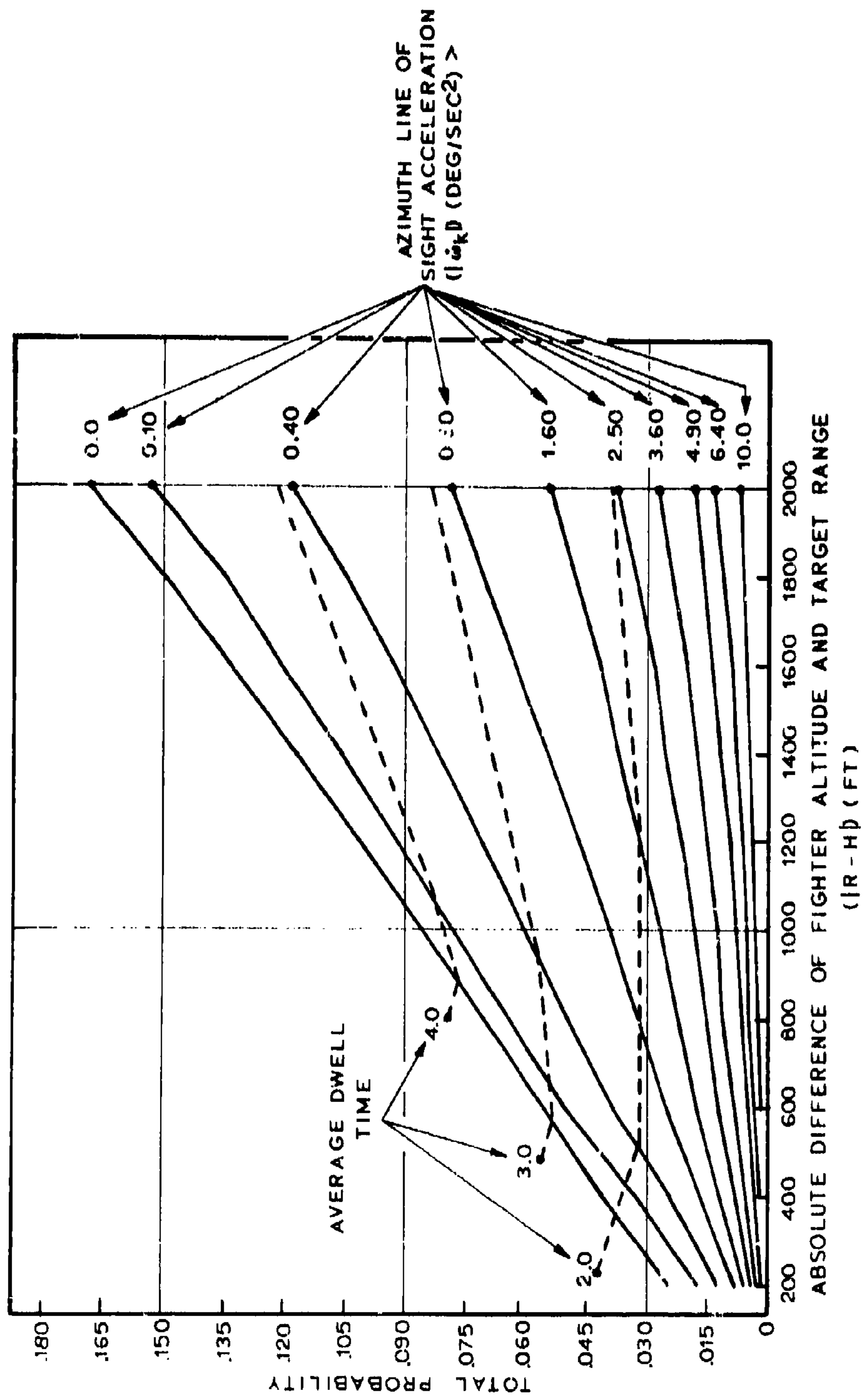


FIG. B-33- CUMULATIVE PROBABILITY DISTRIBUTION OF DIFFERENCE OF FIGHTER ALTITUDE AND TARGET RANGE FOR SEVERAL VALUES OF AZIMUTH LINE OF SIGHT ACCELERATION FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

5. Tables for clutter track-through requirements

a. Pulse doppler main beam clutter - A VCBT

i. Range Acceleration (ARDDOT)

(a) Nose sector (AI Radar coverage) - Table B-10

(b) Tail sector - Table B-11

(c) Full sphere - Table B-12

ii. Azimuth line of sight acceleration (AWKDF)

(a) Nose sector (AI radar coverage) - Table B-13

(b) Tail sector - Table B-14

(c) Full sphere - Table B-15

iii. Elevations line of sight acceleration (AWJDF)

(a) Nose sector (AI radar coverage) - Table B-16

(b) Tail sector - Table B-17

(c) Full sphere - Table B-18

TABLE B-10

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER A VCBT | X PARAMETER ARDDOT

TAPE NO. 1

Y		200.00	162.00	128.00	98.00	72.90	50.00	32.00	18.00	8.00	2.00	LIMIT
20.00	NO.	0	0	0	0	0	0	0	0	0	0	0
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00 AVG
40.00	NO.	0	0	0	0	0	0	0	0	0	0	0
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00 AVG
80.00	NO.	0	0	0	0	0	2	2	6	6	6	7
	PCT.	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.06	0.06	0.06	0.06
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.17	1.17	1.17	1.14
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.35
												28.27 AVG
120.00	NO.	2	2	2	5	7	12	20	27	30	31	31
	PCT.	0.02	0.02	0.02	0.04	0.06	0.13	0.20	0.30	0.33	0.34	0.34
	DT.	1.00	1.00	1.00	1.00	1.14	1.33	1.25	1.37	1.37	1.35	1.39
	STD.	0.00	0.00	0.00	0.00	0.35	0.47	0.43	0.48	0.55	0.54	0.66
												52.28 AVG
160.03	NO.	5	6	11	19	27	45	72	82	84	85	86
	PCT.	0.04	0.05	0.09	0.15	0.26	0.45	0.73	0.93	1.00	1.04	1.06
	DT.	1.00	1.00	1.00	1.00	1.19	1.27	1.28	1.43	1.49	1.53	1.55
	STD.	0.00	0.00	0.00	0.20	0.47	0.65	0.63	0.81	0.88	0.89	0.91
												58.48 AVG
180.00	NO.	7	11	16	26	41	73	102	117	120	123	123
	PCT.	0.06	0.09	0.13	0.22	0.38	0.73	1.08	1.37	1.44	1.52	1.56
	DT.	1.00	1.00	1.00	1.08	1.17	1.26	1.32	1.47	1.51	1.54	1.59
	STD.	0.00	0.00	0.00	0.27	0.44	0.57	0.60	0.87	0.93	0.95	1.00
												60.22 AVG
200.00	NO.	12	18	23	37	55	103	139	155	162	164	164
	PCT.	0.10	0.14	0.18	0.32	0.52	1.02	1.51	1.93	2.06	2.15	2.20
	DT.	1.00	1.00	1.00	1.08	1.18	1.24	1.36	1.55	1.59	1.65	1.68
	STD.	0.00	0.00	0.00	0.27	0.51	0.58	0.62	0.96	1.00	1.04	1.11
												63.84 AVG
220.00	NO.	16	25	34	57	85	145	188	205	210	212	212
	PCT.	0.14	0.21	0.28	0.52	0.84	1.52	2.14	2.66	2.79	2.93	2.98
	DT.	1.06	1.04	1.03	1.14	1.24	1.32	1.43	1.62	1.67	1.73	1.76
	STD.	0.24	0.20	0.17	0.44	0.55	0.63	0.68	1.04	1.09	1.16	1.22
												68.91 AVG
240.00	NO.	22	32	48	73	115	185	231	247	251	248	246
	PCT.	0.19	0.27	0.40	0.68	1.17	2.05	2.87	3.90	3.74	3.90	3.95
	DT.	1.09	1.06	1.04	1.16	1.27	1.39	1.55	1.77	1.86	1.97	2.01
	STD.	0.29	0.24	0.20	0.44	0.58	0.67	0.78	1.14	1.20	1.44	1.49
												69.84 AVG
300.00	NO.	39	56	80	123	189	279	323	333	329	324	323
	PCT.	0.34	0.50	0.75	1.27	2.22	3.65	5.02	5.90	6.27	6.56	6.62
	DT.	1.10	1.15	1.17	1.29	1.47	1.84	1.95	2.22	2.39	2.54	2.57
	STD.	0.38	0.38	0.41	0.58	0.76	0.88	1.05	1.50	1.61	1.89	1.96
												75.05 AVG
LIMIT	NO.	302	393	494	631	782	913	924	811	654	498	421
	PCT.	3.77	5.38	7.37	10.39	15.08	21.80	28.89	34.40	37.80	39.76	40.49
	DT.	1.57	1.72	1.87	2.08	2.42	2.99	3.92	5.31	7.24	10.00	12.05
	STD.	0.81	1.00	1.16	1.43	1.80	2.43	3.29	4.27	5.45	7.20	9.58
												82.44 AVG
	AVG.	542.37	552.25	559.38	554.62	541.14	530.98	530.88	532.92	536.22	538.02	539.07

TABLE B-11

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER A VCBT | X PARAMETER ARDDOT

TAPE NO. 1

Y		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT	
20.00	NO.	0	0	0	0	0	1	1	1	1	1	1	
	PCT.	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												55.07	AVG
40.00	NO.	0	0	0	0	1	2	3	4	4	4	4	
	PCT.	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.03	0.03	
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												52.49	AVG
80.00	NO.	1	1	1	2	4	6	14	20	22	22	23	
	PCT.	0.01	0.01	0.01	0.02	0.05	0.06	0.15	0.20	0.25	0.25	0.26	
	DT.	1.00	1.00	1.00	1.00	1.50	1.33	1.19	1.25	1.41	1.41	1.43	
	STD.	0.00	0.00	0.00	0.00	0.87	0.75	0.53	0.54	0.72	0.72	0.71	
												43.31	AVG
120.00	NO.	3	4	9	13	24	37	53	67	69	70	69	
	PCT.	0.02	0.03	0.07	0.11	0.22	0.34	0.54	0.73	0.81	0.84	0.86	
	DT.	1.00	1.00	1.00	1.08	1.13	1.14	1.28	1.36	1.46	1.50	1.57	
	STD.	0.00	0.00	0.00	0.27	0.60	0.53	0.59	0.66	0.86	0.87	0.92	
												56.10	AVG
160.00	NO.	13	17	35	51	67	98	116	134	134	133	132	
	PCT.	0.10	0.14	0.28	0.42	0.60	0.87	1.25	1.56	1.74	1.80	1.85	
	DT.	1.00	1.00	1.00	1.02	1.12	1.21	1.34	1.46	1.63	1.49	1.76	
	STD.	0.00	0.00	0.00	0.14	0.44	0.57	0.71	0.83	1.09	1.14	1.24	
												68.25	AVG
180.00	NO.	17	26	49	72	94	121	154	171	171	168	167	
	PCT.	0.14	0.21	0.40	0.60	0.87	1.23	1.71	2.08	2.35	2.46	2.52	
	DT.	1.00	1.00	1.02	1.04	1.16	1.27	1.39	1.52	1.72	1.83	1.89	
	STD.	0.00	0.00	0.14	0.20	0.49	0.67	0.88	0.94	1.23	1.39	1.47	
												69.72	AVG
200.00	NO.	19	31	59	94	119	150	189	211	207	202	200	
	PCT.	0.15	0.25	0.48	0.77	1.09	1.55	2.13	2.68	3.04	3.17	3.23	
	DT.	1.00	1.00	1.02	1.03	1.14	1.29	1.41	1.59	1.84	1.87	2.02	
	STD.	0.00	0.00	0.13	0.18	0.49	0.66	0.82	1.01	1.46	1.63	1.86	
												68.01	AVG
220.00	NO.	27	47	78	116	145	185	229	249	240	233	231	
	PCT.	0.22	0.38	0.64	0.98	1.37	1.92	2.65	3.30	3.73	3.86	3.94	
	DT.	1.00	1.00	1.03	1.06	1.19	1.30	1.45	1.66	1.95	2.08	2.14	
	STD.	0.00	0.00	0.16	0.24	0.50	0.65	0.85	1.07	1.66	1.85	2.07	
												71.22	AVG
240.00	NO.	34	59	99	145	179	227	264	281	273	263	259	
	PCT.	0.27	0.47	0.82	1.26	1.71	2.42	3.24	3.93	4.42	4.57	4.66	
	DT.	1.00	1.00	1.04	1.09	1.20	1.33	1.54	1.75	2.03	2.18	2.25	
	STD.	0.00	0.00	0.20	0.31	0.54	0.71	0.94	1.21	1.81	1.99	2.24	
												74.31	AVG
300.00	NO.	55	90	150	210	262	316	355	368	347	331	321	
	PCT.	0.46	0.77	1.37	2.04	2.84	3.87	5.09	6.06	6.75	7.00	7.14	
	DT.	1.05	1.08	1.15	1.23	1.36	1.53	1.80	2.06	2.44	2.65	2.79	
	STD.	0.30	0.31	0.42	0.50	0.67	0.82	1.15	1.45	2.09	2.41	2.80	
												78.09	AVG
LIMIT	NO.	213	290	402	500	563	600	593	552	456	389	349	
	PCT.	2.28	3.33	5.26	7.83	10.43	13.53	16.81	19.44	21.52	22.40	22.76	
	DT.	1.34	1.44	1.64	1.96	2.32	2.83	3.55	4.41	5.91	7.22	8.17	
	STD.	0.80	0.98	1.16	1.48	1.85	2.26	2.81	3.45	4.88	6.02	7.55	
												95.87	AVG
	AVG.	472.15	464.99	451.29	453.81	453.31	458.80	446.28	440.77	443.60	445.17	444.41	

TABLE B-12

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER A VCBT — X PARAMETER ARODBT

TAPE NO. 1

Y		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT	
20.00	NO.	81	109	147	201	267	360	453	517	542	533	529	
	PCT.	0.67	0.90	1.25	1.73	2.43	3.42	4.56	5.72	6.67	7.25	7.38	
	DT.	1.04	1.04	1.06	1.08	1.14	1.19	1.26	1.39	1.54	1.70	1.75	
	STD.	0.25	0.23	0.28	0.32	0.41	0.46	0.55	0.69	0.91	1.18	1.24	
												83.65	AVG
40.00	NO.	147	188	258	339	432	553	653	706	677	437	621	
	PCT.	1.23	1.60	2.28	3.15	4.40	6.15	8.11	10.00	11.45	12.25	12.49	
	DT.	1.05	1.07	1.11	1.17	1.28	1.39	1.56	1.77	2.12	2.41	2.52	
	STD.	0.32	0.33	0.37	0.45	0.64	0.74	0.89	1.09	1.48	1.85	1.96	
												91.18	AVG
80.00	NO.	238	312	415	531	637	769	825	813	714	636	602	
	PCT.	2.03	2.79	3.93	5.54	7.55	10.46	13.55	16.46	18.40	19.51	19.86	
	DT.	1.07	1.12	1.19	1.31	1.49	1.70	2.06	2.54	3.23	3.84	4.13	
	STD.	0.38	0.48	0.54	0.65	0.89	1.11	1.42	1.85	2.44	3.15	3.42	
												96.87	AVG
120.00	NO.	317	416	533	651	767	892	940	895	770	668	627	
	PCT.	2.74	3.86	5.43	7.38	10.03	13.73	17.58	21.07	23.28	24.59	25.00	
	DT.	1.08	1.16	1.28	1.42	1.64	1.93	2.34	2.95	3.79	4.61	5.00	
	STD.	0.40	0.53	0.62	0.77	1.04	1.38	1.64	2.22	2.99	4.01	4.77	
												102.81	AVG
160.00	NO.	383	500	640	779	898	1022	1047	977	828	707	654	
	PCT.	3.48	4.92	7.01	9.50	12.69	17.17	21.72	25.46	28.15	29.41	30.08	
	DT.	1.14	1.23	1.37	1.53	1.77	2.11	2.60	3.29	4.26	5.25	5.76	
	STD.	0.47	0.58	0.73	0.89	1.16	1.45	1.85	2.51	3.39	4.61	5.72	
												106.65	AVG
180.00	NO.	407	533	678	825	944	1061	1081	998	844	711	656	
	PCT.	3.81	5.47	7.73	10.48	13.98	18.79	23.67	27.82	30.48	32.04	32.55	
	DT.	1.17	1.29	1.43	1.59	1.86	2.22	2.74	3.49	4.52	5.65	6.22	
	STD.	0.52	0.64	0.79	0.94	1.21	1.52	1.99	2.67	3.61	4.88	6.00	
												107.48	AVG
200.00	NO.	440	576	720	878	991	1107	1121	1027	865	725	667	
	PCT.	4.21	6.00	8.42	11.44	15.14	20.33	25.50	30.01	32.87	34.47	35.00	
	DT.	1.20	1.31	1.47	1.63	1.91	2.30	2.85	3.66	4.76	5.96	6.57	
	STD.	0.55	0.65	0.82	0.98	1.27	1.59	2.09	2.82	3.80	5.08	6.25	
												108.98	AVG
220.00	NO.	481	620	762	918	1031	1146	1154	1050	874	730	671	
	PCT.	4.82	5.77	9.30	12.56	16.62	22.15	27.61	32.34	35.34	36.99	37.53	
	DT.	1.26	1.37	1.53	1.71	2.02	2.43	3.00	3.86	5.07	6.35	7.01	
	STD.	0.59	0.69	0.86	1.06	1.37	1.79	2.28	2.93	3.99	5.31	6.49	
												111.34	AVG
240.00	NO.	510	652	802	965	1063	1196	1208	1079	896	740	676	
	PCT.	5.24	7.29	10.84	13.68	17.95	23.92	29.75	34.60	37.88	39.60	40.15	
	DT.	1.29	1.40	1.57	1.77	2.08	2.51	3.11	4.03	5.30	6.71	7.44	
	STD.	0.65	0.75	0.92	1.11	1.43	1.80	2.32	3.10	4.27	5.81	7.57	
												112.34	AVG
300.00	NO.	564	728	887	1056	1183	1383	1282	1133	911	741	670	
	PCT.	6.34	8.74	11.99	16.16	21.41	28.37	35.29	40.79	44.37	46.31	46.94	
	DT.	1.36	1.50	1.69	1.92	2.27	2.73	3.45	4.51	6.10	7.83	8.78	
	STD.	0.72	0.85	1.04	1.25	1.62	2.04	2.63	3.51	5.03	7.38	9.20	
												114.85	AVG
LIMIT	NO.	843	1020	1223	1430	1574	1656	1490	1101	593	193	11	
	PCT.	14.01	18.74	25.24	33.97	44.92	59.31	74.13	86.05	94.10	98.41	99.92	
	DT.	2.08	2.30	2.59	2.98	3.58	4.48	6.23	9.79	19.88	63.59	1138.18	
	STD.	1.35	1.67	2.01	2.40	3.00	4.12	6.18	9.94	22.59	71.25	798.41	
												119.44	AVG
	AVG.	359.07	357.42	355.64	357.46	357.76	357.73	360.29	360.47	362.36	363.11	363.83	

TABLE B-13

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER A VCBT — X PARAMETER A VKDF

TAPE NO. 1

Y		10.00	6.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT	
20.00	NO.	0	0	0	0	0	0	0	0	0	0	0	
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												0.00	AVG
40.00	NO.	0	0	0	0	0	0	0	0	0	0	0	
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	STD.	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												0.00	AVG
80.00	NO.	0	0	0	0	0	1	1	3	6	6	7	
	PCT.	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.05	0.06	0.06	
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.17	1.14	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.36	
												0.94	AVG
120.00	NO.	1	1	1	1	1	2	5	10	12	21	31	
	PCT.	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.09	0.15	0.24	0.34	
	DT.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.58	1.43	1.39	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.66	0.73	0.64	
												1.41	AVG
160.00	NO.	4	4	6	7	14	17	25	37	48	75	86	
	PCT.	0.03	0.03	0.05	0.06	0.11	0.14	0.23	0.36	0.54	0.87	1.06	
	DT.	1.90	1.00	1.00	1.00	1.00	1.06	1.16	1.22	1.42	1.45	1.55	
	STD.	0.00	0.00	0.00	0.00	0.00	0.24	0.37	0.41	0.76	0.79	0.91	
												1.40	AVG
180.00	NO.	4	4	7	8	16	20	35	53	72	113	123	
	PCT.	0.03	0.03	0.06	0.06	0.13	0.17	0.31	0.50	0.77	1.29	1.56	
	DT.	1.00	1.00	1.00	1.00	1.00	1.05	1.11	1.19	1.35	1.43	1.59	
	STD.	0.00	0.00	0.00	0.00	0.00	0.22	0.32	0.39	0.73	0.82	1.00	
												1.26	AVG
200.00	NO.	6	9	13	14	23	28	51	72	98	149	164	
	PCT.	0.05	0.07	0.10	0.11	0.18	0.24	0.46	0.73	1.13	1.83	2.20	
	DT.	1.00	1.00	1.00	1.00	1.00	1.07	1.14	1.26	1.44	1.54	1.68	
	STD.	0.00	0.00	0.00	0.00	0.00	0.26	0.34	0.50	0.86	0.93	1.11	
												1.45	AVG
220.00	NO.	10	15	21	25	35	42	70	97	133	193	212	
	PCT.	0.08	0.12	0.17	0.20	0.30	0.37	0.67	1.03	1.59	2.47	2.98	
	DT.	1.00	1.00	1.00	1.00	1.06	1.10	1.20	1.33	1.50	1.61	1.76	
	STD.	0.00	0.00	0.00	0.00	0.23	0.29	0.43	0.57	0.85	1.02	1.22	
												1.76	AVG
240.00	NO.	13	19	28	35	46	57	88	122	150	229	246	
	PCT.	0.10	0.15	0.22	0.28	0.38	0.52	0.88	1.40	2.11	3.34	3.95	
	DT.	1.00	1.00	1.00	1.00	1.04	1.14	1.25	1.43	1.68	1.83	2.01	
	STD.	0.00	0.00	0.00	0.00	0.20	0.39	0.51	0.74	1.01	1.29	1.49	
												1.75	AVG
300.00	NO.	28	35	46	57	79	98	141	181	235	321	323	
	PCT.	0.23	0.29	0.39	0.50	0.73	1.02	1.56	2.40	3.68	5.69	6.62	
	DT.	1.04	1.03	1.07	1.11	1.16	1.31	1.39	1.66	1.96	2.22	2.57	
	STD.	0.19	0.17	0.25	0.31	0.37	0.61	0.76	1.07	1.49	1.70	1.95	
												1.95	AVG
LIMIT	NO.	204	251	295	356	439	524	631	764	870	733	421	
	PCT.	1.81	2.59	3.00	4.01	5.62	7.64	10.81	15.95	24.21	34.38	40.49	
	DT.	1.11	1.20	1.27	1.41	1.60	1.83	2.15	2.62	3.49	5.88	12.05	
	STD.	0.33	0.42	0.52	0.65	0.86	1.14	1.65	2.18	2.93	5.05	9.58	
												2.31	AVG
	AVG.	540.88	547.18	539.91	546.41	547.27	547.70	540.67	537.47	534.32	530.69	539.07	

TABLE B-14

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER A VCBT

X PARAMETER A WKDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.00	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
20.00	NO.	0	0	0	0	0	0	0	1	1	1	1
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												1.16 AVG
40.00	NO.	0	0	0	0	0	0	0	1	1	2	4
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.37 AVG
80.00	NO.	0	0	0	0	0	0	0	2	6	18	23
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.19	0.26
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.17	1.33	1.43
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.58	0.71
												0.31 AVG
120.00	NO.	0	0	1	1	3	5	8	16	37	62	69
	PCT.	0.00	0.00	0.01	0.01	0.02	0.04	0.06	0.13	0.34	0.72	0.86
	DT.	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.16	1.45	1.57
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.84	0.92
												0.62 AVG
160.00	NO.	4	4	6	7	11	21	31	53	86	125	132
	PCT.	0.03	0.03	0.06	0.07	0.10	0.20	0.29	0.49	0.85	1.60	1.85
	DT.	1.00	1.00	1.17	1.29	1.18	1.19	1.16	1.15	1.24	1.61	1.76
	STD.	0.00	0.00	0.37	0.45	0.39	0.39	0.37	0.41	0.61	1.08	1.24
												1.16 AVG
180.00	NO.	6	7	10	14	19	31	46	71	116	161	187
	PCT.	0.05	0.06	0.09	0.13	0.17	0.29	0.43	0.73	1.27	2.22	2.32
	DT.	1.00	1.00	1.10	1.14	1.11	1.16	1.17	1.38	1.37	1.73	1.89
	STD.	0.00	0.00	0.30	0.35	0.31	0.37	0.38	0.57	0.66	1.29	1.47
												1.24 AVG
200.00	NO.	6	8	12	17	26	42	64	98	150	197	208
	PCT.	0.05	0.06	0.10	0.15	0.22	0.39	0.61	1.01	1.72	2.84	3.23
	DT.	1.00	1.00	1.08	1.12	1.08	1.17	1.29	1.30	1.44	1.81	2.02
	STD.	0.00	0.00	0.28	0.32	0.27	0.37	0.39	0.56	0.77	1.43	1.86
												1.24 AVG
220.00	NO.	9	12	19	27	36	59	84	127	188	229	231
	PCT.	0.07	0.10	0.16	0.23	0.31	0.56	0.82	1.35	2.23	3.46	3.94
	DT.	1.06	1.08	1.05	1.07	1.08	1.19	1.23	1.33	1.49	1.89	2.14
	STD.	0.00	0.00	0.22	0.26	0.28	0.43	0.47	0.63	0.89	1.58	2.07
												1.44 AVG
240.00	NO.	11	15	24	36	49	80	111	158	217	256	259
	PCT.	0.09	0.12	0.20	0.30	0.42	0.75	1.08	1.76	2.74	4.09	4.64
	DT.	1.00	1.00	1.04	1.06	1.68	1.17	1.22	1.39	1.58	2.00	2.25
	STD.	0.00	0.00	0.20	0.23	0.27	0.41	0.47	0.68	0.97	1.68	2.24
												1.55 AVG
300.00	NO.	17	19	36	61	81	122	166	239	303	328	321
	PCT.	0.14	0.18	0.33	0.56	0.78	1.26	1.81	2.94	4.45	6.36	7.14
	DT.	1.06	1.16	1.14	1.15	1.21	1.30	1.37	1.54	1.84	2.42	2.79
	STD.	0.24	0.36	0.35	0.48	0.46	0.61	0.75	0.89	1.23	2.14	2.88
												1.65 AVG
LIMIT	NO.	138	166	217	291	349	419	460	537	563	483	349
	PCT.	1.23	1.54	2.08	2.95	3.98	5.47	7.45	16.62	14.54	19.80	22.76
	DT.	1.12	1.16	1.20	1.27	1.43	1.63	1.99	2.48	3.33	5.14	8.17
	STD.	0.34	0.39	0.42	0.49	0.62	0.80	1.21	1.72	2.44	3.98	7.55
												3.12 AVG
	AVG.	548.20	536.27	568.32	492.71	483.75	465.96	452.44	437.82	431.07	428.94	444.41

TABLE B-15

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER A VCBT — X PARAMETER A WXDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT	
20.00	NO.	57	72	85	113	140	189	278	366	438	515	529	
	PCT.	0.50	0.64	0.76	1.00	1.32	1.87	2.85	4.15	5.64	6.95	7.38	
	DT.	1.11	1.11	1.12	1.11	1.19	1.24	1.28	1.42	1.61	1.69	1.75	
	STD.	0.36	0.36	0.36	0.34	0.53	0.59	0.62	0.74	1.00	1.21	1.24	
												3.36	AVG
40.00	NO.	93	112	136	182	242	313	408	507	585	624	621	
	PCT.	0.85	1.05	1.30	1.76	2.49	3.43	4.97	7.04	9.45	11.66	12.49	
	DT.	1.15	1.17	1.20	1.21	1.29	1.37	1.53	1.74	2.02	2.34	2.52	
	STD.	0.39	0.44	0.47	0.48	0.72	0.78	0.98	1.11	1.44	1.82	1.96	
												3.51	AVG
80.00	NO.	144	171	205	266	343	434	536	631	688	652	602	
	PCT.	1.38	1.70	2.12	2.80	3.03	5.45	7.69	10.70	14.57	18.40	19.86	
	DT.	1.20	1.25	1.30	1.32	1.44	1.57	1.80	2.13	2.65	3.54	4.13	
	STD.	0.43	0.56	0.60	0.68	0.98	1.00	1.31	1.60	2.13	2.98	3.42	
												3.57	AVG
120.00	NO.	179	206	247	316	407	505	613	724	798	717	627	
	PCT.	1.74	2.11	2.62	3.42	4.78	6.55	9.19	12.02	17.86	22.93	25.00	
	DT.	1.22	1.28	1.33	1.35	1.47	1.63	1.88	2.22	2.83	4.01	5.00	
	STD.	0.46	0.58	0.64	0.70	0.99	1.12	1.36	1.71	2.31	3.61	4.77	
												3.63	AVG
160.00	NO.	218	247	293	373	473	580	703	827	882	779	654	
	PCT.	2.16	2.57	3.21	4.21	5.75	7.78	10.83	15.16	21.09	27.44	30.00	
	DT.	1.24	1.30	1.37	1.41	1.52	1.68	1.93	2.30	3.00	4.41	5.76	
	STD.	0.49	0.60	0.67	0.75	1.00	1.14	1.39	1.77	2.46	3.95	5.72	
												3.74	AVG
180.00	NO.	225	257	306	398	489	641	738	855	910	801	656	
	PCT.	2.31	2.74	3.42	4.49	6.08	8.20	11.50	16.19	22.63	29.66	32.55	
	DT.	1.28	1.33	1.40	1.45	1.56	1.71	1.95	2.37	3.12	4.64	6.22	
	STD.	0.52	0.62	0.60	0.77	1.02	1.16	1.41	1.05	2.57	4.13	6.00	
												3.66	AVG
200.00	NO.	236	270	323	408	515	629	779	902	953	829	667	
	PCT.	2.47	2.94	3.68	4.79	6.49	8.71	12.23	17.17	24.15	31.79	35.00	
	DT.	1.31	1.36	1.43	1.47	1.58	1.73	1.97	2.39	3.18	4.80	6.57	
	STD.	0.57	0.65	0.72	0.80	1.94	1.19	1.44	1.86	2.59	4.29	6.25	
												3.72	AVG
220.00	NO.	252	290	347	439	544	666	818	952	994	854	671	
	PCT.	2.71	3.22	4.04	5.24	7.32	9.39	13.14	18.43	25.87	34.03	37.53	
	DT.	1.35	1.39	1.46	1.50	1.62	1.77	2.01	2.43	3.26	4.99	7.01	
	STD.	0.60	0.66	0.74	0.82	1.05	1.22	1.48	1.93	2.67	4.44	6.49	
												3.79	AVG
240.00	NO.	269	309	368	464	571	705	867	1004	1033	879	676	
	PCT.	2.90	3.43	4.30	5.59	7.44	10.05	13.97	19.60	27.52	36.30	40.15	
	DT.	1.35	1.39	1.46	1.51	1.63	1.79	2.02	2.46	3.34	5.19	7.44	
	STD.	0.59	0.67	0.76	0.84	1.07	1.25	1.52	2.05	2.85	4.85	7.57	
												3.79	AVG
300.00	NO.	298	336	406	515	637	782	962	1105	1135	934	670	
	PCT.	3.39	4.00	5.01	6.52	8.76	11.69	16.09	22.78	32.06	42.51	46.94	
	DT.	1.43	1.49	1.55	1.59	1.71	1.87	2.10	2.58	3.54	5.70	8.78	
	STD.	0.68	0.77	0.83	0.92	1.15	1.33	1.62	2.24	3.13	5.57	9.28	
												3.79	AVG
LIMIT	NO.	472	541	637	798	963	1157	1352	1520	1458	795	11	
	PCT.	7.53	9.01	11.03	14.21	18.70	24.53	33.15	46.41	65.83	87.93	99.92	
	DT.	2.00	2.09	2.17	2.23	2.43	2.66	3.07	3.03	5.66	13.06	[illegible]	
	STD.	1.09	1.22	1.33	1.50	1.75	2.01	2.59	3.65	5.85	16.51	798.41	
												4.05	AVG
	AVG.	368.73	369.98	362.01	359.87	355.89	350.24	343.05	341.13	344.24	350.25	363.63	

TABLE B-16

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA= 60,00

Y PARAMETER A VCB* — X PARAMETER A WJDF

TAPE NO. 1

Y PARAMETER		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT
20,00	NE,	0	0	0	0	0	0	0	0	0	0	0
	PCT,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	DT,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
												0,00 AVG
40,00	NE,	0	0	0	0	0	0	0	0	0	0	0
	PCT,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	DT,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
												0,00 AVG
80,00	NE,	0	0	0	0	0	1	1	2	4	5	7
	PCT,	0,00	0,00	0,00	0,00	0,00	0,01	0,01	0,02	0,04	0,05	0,06
	DT,	0,00	0,00	0,00	0,00	0,00	1,00	1,00	1,50	1,25	1,20	1,14
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,50	0,43	0,40	0,35
												0,90 AVG
120,00	NE,	0	1	1	2	2	4	6	9	13	19	31
	PCT,	0,00	0,01	0,01	0,02	0,02	0,03	0,05	0,08	0,13	0,20	0,34
	DT,	0,00	1,00	1,00	1,00	1,00	1,00	1,00	1,11	1,23	1,32	1,39
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,31	0,42	0,57	0,66
												0,83 AVG
160,00	NE,	1	3	4	9	11	16	23	35	50	71	86
	PCT,	0,01	0,02	0,03	0,07	0,09	0,16	0,22	0,35	0,51	0,75	1,06
	DT,	1,00	1,00	1,00	1,00	1,00	1,25	1,22	1,26	1,28	1,32	1,55
	STD,	0,00	0,00	0,00	0,00	0,00	0,56	0,51	0,65	0,63	0,67	0,91
												1,25 AVG
180,00	NE,	2	5	6	12	14	21	30	43	69	103	123
	PCT,	0,02	0,04	0,05	0,10	0,11	0,21	0,29	0,44	0,72	1,11	1,56
	DT,	1,00	1,00	1,00	1,00	1,00	1,24	1,20	1,28	1,38	1,35	1,59
	STD,	0,00	0,00	0,00	0,00	0,00	0,68	0,69	0,73	0,67	0,71	1,08
												1,13 AVG
200,00	NE,	5	9	11	18	22	31	40	60	95	138	164
	PCT,	0,04	0,07	0,09	0,14	0,18	0,29	0,38	0,62	1,03	1,69	2,20
	DT,	1,00	1,00	1,00	1,00	1,00	1,16	1,20	1,30	1,36	1,45	1,68
	STD,	0,00	0,00	0,00	0,00	0,00	0,57	0,60	0,80	0,74	0,83	1,11
												1,44 AVG
220,00	NE,	9	15	17	26	32	44	56	83	124	185	212
	PCT,	0,07	0,13	0,14	0,22	0,27	0,42	0,57	0,87	1,40	2,23	2,98
	DT,	1,00	1,07	1,06	1,08	1,06	1,20	1,27	1,31	1,41	1,51	1,76
	STD,	0,00	0,25	0,24	0,27	0,24	0,66	0,67	0,79	0,77	0,90	1,22
												1,86 AVG
240,00	NE,	11	20	23	33	43	58	77	108	159	223	246
	PCT,	0,09	0,17	0,19	0,29	0,37	0,56	0,80	1,22	1,94	3,08	3,95
	DT,	1,08	1,05	1,04	1,09	1,07	1,21	1,30	1,42	1,53	1,69	2,01
	STD,	0,00	0,22	0,20	0,29	0,25	0,64	0,70	0,84	0,83	1,14	1,49
												1,81 AVG
300,00	NE,	19	32	43	57	68	85	128	174	249	318	323
	PCT,	0,16	0,28	0,38	0,53	0,64	0,90	1,34	2,12	3,39	5,19	6,62
	DT,	1,25	1,09	1,09	1,16	1,18	1,33	1,40	1,53	1,71	2,04	2,57
	STD,	0,22	0,29	0,36	0,41	0,42	0,73	0,75	0,97	1,13	1,51	1,96
												1,76 AVG
LIMIT	NE,	223	271	331	379	429	503	589	699	783	715	421
	PCT,	2,23	2,88	3,88	4,99	6,37	8,49	11,80	16,63	24,61	34,38	13,49
	DT,	1,25	1,33	1,47	1,69	1,86	2,12	2,47	2,98	3,94	6,03	12,05
	STD,	0,51	0,58	0,71	0,87	1,14	1,48	1,83	2,29	3,32	4,80	9,38
												2,50 AVG
	AVG,	583,20	575,97	573,88	561,40	564,42	563,70	560,11	555,37	548,51	542,62	539,07

TABLE B-17

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER A VCBT — X PARAMETER A WJDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
20.00	NE.	0	0	0	0	0	0	0	0	0	1	1
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.21 AVG
40.00	NE.	0	0	0	0	0	0	0	0	1	3	4
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.28 AVG
80.00	NE.	0	0	0	0	0	1	1	4	9	18	23
	PCT.	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.10	0.20	0.26
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.33	1.39	1.43
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.68	0.71
												0.44 AVG
120.00	NE.	0	1	1	3	4	8	9	19	27	64	69
	PCT.	0.00	0.01	0.01	0.02	0.03	0.06	0.07	0.17	0.27	0.70	0.86
	DT.	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.26	1.38	1.57
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.80	0.82	0.92
												0.66 AVG
160.00	NE.	8	11	11	19	23	30	34	55	77	123	132
	PCT.	0.07	0.10	0.10	0.16	0.19	0.25	0.30	0.51	0.79	1.52	1.85
	DT.	1.13	1.09	1.09	1.05	1.04	1.03	1.12	1.16	1.29	1.55	1.76
	STD.	0.33	0.29	0.29	0.22	0.20	0.18	0.32	0.42	0.68	1.05	1.24
												1.62 AVG
180.00	NE.	10	13	15	26	32	38	45	73	107	156	167
	PCT.	0.09	0.11	0.13	0.22	0.26	0.34	0.42	0.73	1.16	2.10	2.52
	DT.	1.10	1.08	1.07	1.04	1.03	1.11	1.16	1.25	1.36	1.69	1.89
	STD.	0.30	0.27	0.25	0.19	0.17	0.31	0.42	0.54	0.86	1.20	1.47
												1.58 AVG
200.00	NE.	11	15	18	33	40	51	62	96	137	188	200
	PCT.	0.10	0.13	0.15	0.28	0.34	0.45	0.57	0.95	1.52	2.67	3.23
	DT.	1.09	1.07	1.06	1.06	1.05	1.10	1.16	1.24	1.39	1.78	2.02
	STD.	0.29	0.25	0.23	0.24	0.22	0.30	0.48	0.61	0.86	1.53	1.86
												1.53 AVG
220.00	NE.	12	18	24	40	53	68	85	121	169	227	231
	PCT.	0.10	0.15	0.20	0.34	0.45	0.61	0.80	1.24	1.93	3.30	3.94
	DT.	1.08	1.06	1.04	1.07	1.06	1.12	1.18	1.28	1.43	1.82	2.14
	STD.	0.28	0.23	0.20	0.26	0.23	0.32	0.49	0.66	0.92	1.58	2.07
												1.55 AVG
240.00	NE.	[illegible]	24	31	46	67	85	110	152	199	266	259
	PCT.	0.13	0.20	0.26	0.41	0.56	0.75	1.02	1.59	2.49	3.95	4.66
	DT.	1.07	1.04	1.03	1.06	1.04	1.11	1.16	1.31	1.51	1.86	2.25
	STD.	0.25	0.20	0.18	0.24	0.21	0.31	0.46	0.70	0.96	1.59	2.24
												1.63 AVG
300.00	NE.	22	35	48	70	96	124	159	215	275	343	321
	PCT.	0.18	0.29	0.41	0.63	0.90	1.23	1.67	2.66	4.02	6.19	7.14
	DT.	1.05	1.03	1.06	1.13	1.18	1.24	1.31	1.55	1.83	2.26	2.79
	STD.	0.21	0.17	0.24	0.37	0.66	0.73	0.77	1.05	1.39	2.03	2.80
												1.66 AVG
LIMIT	NE.	272	216	261	316	378	427	466	542	553	488	349
	PCT.	1.60	2.12	2.72	3.51	4.55	5.87	7.75	10.57	14.67	20.06	22.76
	DT.	1.17	1.23	1.31	1.39	1.51	1.72	2.08	2.44	3.32	5.15	8.17
	STD.	0.37	0.42	0.50	0.57	0.69	0.88	1.22	1.58	2.42	4.12	7.55
												3.24 AVG
	AVG.	548.70	527.62	519.68	494.64	479.45	471.53	463.72	449.27	447.24	438.82	444.41

TABLE B-18

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA = 60,00

Y PARAMETER A VCBT — X PARAMETER A WJDF

TAPE NO. 1

Y		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT
20,00	NE,	61	69	94	127	184	245	307	380	453	506	529
	PCT,	0,54	0,61	0,81	1,69	1,72	2,52	3,54	4,65	5,83	6,89	7,38
	DT,	1,11	1,10	1,07	1,08	1,17	1,29	1,45	1,53	1,61	1,71	1,75
	STD,	0,32	0,30	0,26	0,27	0,42	0,57	0,83	0,96	1,00	1,18	1,24
												3,60 AVG
40,00	NE,	102	121	160	221	294	366	432	505	577	618	621
	PCT,	0,94	1,11	1,45	2,02	2,91	4,15	5,68	7,53	9,62	11,55	12,49
	DT,	1,16	1,15	1,14	1,14	1,24	1,42	1,65	1,87	2,09	2,34	2,52
	STD,	0,39	0,40	0,38	0,36	0,51	0,74	0,99	1,29	1,50	1,82	1,96
												3,78 AVG
80,00	NE,	151	180	233	309	406	499	585	643	675	656	602
	PCT,	1,47	1,75	2,27	3,02	4,33	6,16	8,39	11,19	14,68	18,12	19,86
	DT,	1,22	1,22	1,22	1,23	1,33	1,55	1,80	2,18	2,73	3,46	4,13
	STD,	0,44	0,49	0,50	0,50	0,66	0,95	1,21	1,62	2,18	2,94	3,42
												3,62 AVG
120,00	NE,	188	224	283	366	477	585	682	740	745	722	627
	PCT,	1,83	2,18	2,79	3,70	5,21	7,37	10,03	13,45	17,86	22,59	25,08
	DT,	1,22	1,22	1,24	1,26	1,37	1,58	1,84	2,28	3,00	3,92	5,00
	STD,	0,45	0,43	0,53	0,57	0,73	1,02	1,28	1,72	2,45	3,39	4,77
												3,62 AVG
160,00	NE,	228	270	335	428	542	662	767	836	836	795	654
	PCT,	2,25	2,68	3,38	4,51	6,17	8,65	11,67	15,79	21,09	26,81	30,08
	DT,	1,24	1,24	1,27	1,32	1,43	1,64	1,91	2,37	3,16	4,24	5,76
	STD,	0,48	0,52	0,57	0,66	0,79	1,11	1,39	1,86	2,65	3,84	5,72
												3,88 AVG
180,00	NE,	235	279	342	446	567	688	797	864	870	817	656
	PCT,	2,36	2,85	3,62	4,83	6,54	9,15	12,34	16,77	22,48	28,00	32,55
	DT,	1,28	1,26	1,30	1,35	1,45	1,67	1,94	2,43	3,24	4,45	6,22
	STD,	0,54	0,56	0,62	0,70	0,82	1,15	1,42	1,90	2,77	4,02	6,08
												3,88 AVG
200,00	NE,	246	294	364	468	592	719	829	906	910	848	667
	PCT,	2,55	3,06	3,88	5,15	6,95	9,65	12,98	17,68	23,89	31,09	35,00
	DT,	1,30	1,30	1,34	1,38	1,47	1,68	1,96	2,44	3,29	4,59	6,57
	STD,	0,54	0,57	0,64	0,71	0,82	1,16	1,44	1,93	2,80	4,14	6,25
												3,89 AVG
220,00	NE,	264	316	388	493	628	756	866	940	941	884	671
	PCT,	2,80	3,37	4,23	5,56	7,54	10,40	13,72	18,79	25,43	33,25	37,53
	DT,	1,33	1,34	1,37	1,41	1,50	1,72	2,01	2,51	3,39	4,71	7,01
	STD,	0,56	0,60	0,66	0,75	0,87	1,21	1,49	2,00	2,89	4,26	6,49
												3,93 AVG
240,00	NE,	278	335	405	513	658	791	918	985	978	919	676
	PCT,	2,96	3,59	4,48	5,86	7,98	10,96	14,75	19,96	27,06	35,46	40,15
	DT,	1,33	1,34	1,39	1,44	1,52	1,74	2,01	2,54	3,47	4,83	7,44
	STD,	0,57	0,62	0,69	0,79	0,89	1,23	1,51	2,09	3,13	4,68	7,57
												3,87 AVG
300,00	NE,	306	372	448	558	711	849	990	1077	1072	984	670
	PCT,	3,42	4,14	5,19	6,78	9,11	12,36	16,65	22,81	31,24	41,35	46,94
	DT,	1,39	1,40	1,45	1,52	1,61	1,82	2,11	2,65	3,65	5,27	8,78
	STD,	0,64	0,68	0,74	0,86	0,96	1,31	1,60	2,20	3,39	5,19	9,20
												3,83 AVG
LIMIT	NE,	507	600	720	856	1044	1222	1365	1463	1332	833	11
	PCT,	8,36	10,15	12,65	15,83	20,34	26,52	35,09	47,58	65,80	87,69	99,92
	DT,	2,07	2,12	2,20	2,32	2,44	2,72	3,22	4,08	6,19	13,19	1138,16
	STD,	1,08	1,19	1,33	1,52	1,73	2,13	2,72	3,77	6,60	14,70	798,41
												4,16 AVG
	AVG,	393,60	392,58	391,33	376,89	364,64	354,73	349,55	348,71	353,82	358,56	363,63

b. f_o Notch (ABS VC)

i. Range acceleration (ARDDOT)

(a) Nose sector (AI radar coverage) - Table B-19

(b) Tail sector - Table B-20

(c) Full sphere - Table B-21

ii. Azimuth line of sight acceleration (AWKDF)

(a) Nose sector (AI radar coverage) - Table B-22

(b) Tail sector - Table B-23

(c) Full sphere - Table B-24

iii. Elevation line of sight acceleration (AWJDF)

(a) Nose sector (AI radar coverage) - Table B-25

(b) Tail sector - Table B-26

(c) Full sphere - Table B-27

TABLE B-19

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 828.00 LANDA= 60.00

Y PARAMETER ABS VC — X PARAMETER ARDDOT

TAPE NO. -0

Y		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT
25.00	NO.	8	9	11	15	25	30	38	41	46	46	43
	PCT.	0.06	0.07	0.09	0.12	0.20	0.24	0.33	0.38	0.45	0.55	0.57
	DT.	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.15	1.24	1.50	1.67
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.35	0.47	1.30	1.68
												77.23 AVG
50.00	NO.	20	23	30	36	51	62	68	73	79	75	72
	PCT.	0.13	0.13	0.24	0.30	0.42	0.53	0.64	0.73	0.89	1.01	1.03
	DT.	1.00	1.00	1.00	1.00	1.02	1.06	1.18	1.25	1.41	1.68	1.79
	STD.	0.00	0.00	0.00	0.00	0.14	0.30	0.45	0.32	0.74	1.63	1.94
												98.33 AVG
75.00	NO.	27	31	40	52	66	80	85	93	98	95	92
	PCT.	0.22	0.25	0.32	0.42	0.57	0.75	0.93	1.07	1.28	1.44	1.48
	DT.	1.00	1.00	1.00	1.00	1.08	1.17	1.36	1.44	1.64	1.91	2.02
	STD.	0.00	0.00	0.00	0.00	0.26	0.44	0.76	0.82	1.07	2.20	3.16
												96.86 AVG
100.00	NO.	35	44	55	63	78	95	107	117	121	114	111
	PCT.	0.28	0.36	0.45	0.59	0.76	1.01	1.27	1.47	1.71	1.89	1.93
	DT.	1.00	1.02	1.02	1.10	1.22	1.33	1.40	1.57	1.77	2.08	2.18
	STD.	0.00	0.15	0.13	0.29	0.44	0.61	0.86	0.95	1.24	2.23	3.19
												106.59 AVG
125.00	NO.	38	49	61	71	88	104	116	128	131	123	121
	PCT.	0.30	0.40	0.53	0.66	0.94	1.24	1.56	1.80	2.07	2.27	2.32
	DT.	1.00	1.02	1.08	1.17	1.34	1.49	1.69	1.76	1.98	2.32	2.40
	STD.	0.00	0.14	0.33	3.41	0.58	0.84	1.05	1.10	1.45	2.34	3.27
												101.70 AVG
150.00	NO.	46	58	71	87	111	134	-148	157	159	190	146
	PCT.	0.38	0.50	0.65	0.85	1.21	1.63	2.04	2.31	2.63	2.86	2.91
	DT.	1.04	1.09	1.15	1.23	1.37	1.32	1.72	1.85	2.08	2.39	2.49
	STD.	0.20	0.28	0.40	0.47	0.61	0.84	1.08	1.26	1.60	2.36	3.21
												102.38 AVG
175.00	NO.	58	73	87	107	133	164	177	182	183	172	168
	PCT.	0.48	0.64	0.81	1.05	1.46	2.00	2.45	2.79	3.12	3.35	3.41
	DT.	1.03	1.10	1.16	1.22	1.38	1.52	1.73	1.92	2.14	2.44	2.54
	STD.	0.18	0.29	0.40	0.46	0.68	0.91	1.22	1.56	1.91	2.53	3.30
												104.06 AVG
200.00	NO.	64	83	98	125	154	188	208	216	215	204	201
	PCT.	0.53	0.73	0.92	1.21	1.70	2.32	2.90	3.32	3.69	3.93	4.00
	DT.	1.03	1.10	1.17	1.22	1.36	1.55	1.75	1.93	2.15	2.42	2.49
	STD.	0.21	0.30	0.43	0.47	0.69	0.91	1.22	1.58	2.22	3.12	4.01
												102.02 AVG
225.00	NO.	67	88	106	134	169	205	230	236	233	221	217
	PCT.	0.56	0.78	1.00	1.33	1.92	2.67	3.41	3.91	4.29	4.55	4.62
	DT.	1.04	1.11	1.18	1.25	1.43	1.63	1.86	2.08	2.31	2.58	2.67
	STD.	0.21	0.35	0.45	0.54	0.75	1.02	1.35	1.68	2.28	3.12	4.24
												98.45 AVG
250.00	NO.	72	93	114	145	186	230	256	231	259	248	242
	PCT.	0.32	0.85	1.11	1.48	2.16	3.03	3.80	4.45	4.88	5.18	5.28
	DT.	1.06	1.15	1.22	1.28	1.46	1.65	1.90	2.14	2.36	2.62	2.73
	STD.	0.28	0.41	0.51	0.59	0.80	1.03	1.34	1.68	2.27	3.07	4.15
												96.72 AVG
LIMIT	NO.	302	393	494	631	782	913	924	811	654	498	421
	PCT.	3.77	5.38	7.37	10.29	15.08	21.80	28.69	34.40	37.80	39.76	40.49
	DT.	1.57	1.72	1.87	2.06	2.42	2.99	3.92	5.31	7.24	10.00	12.05
	STD.	0.81	1.00	1.16	1.43	1.60	2.43	3.29	4.27	5.45	7.20	9.58
												82.44 AVG
	AVG.	732.56	728.76	726.39	702.59	671.82	648.37	643.78	642.38	641.36	638.98	639.33

TABLE B-20

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225,00 LANDA = 60,00

Y PARAMETER ABS YC — X PARAMETER ARDDOT

TAPE NO. -8

Y		200,00	162,00	128,00	98,00	72,00	50,00	32,00	18,00	8,00	2,00	LIMIT
25,00	NO.	6	7	14	22	34	48	65	71	72	72	71
	PCT.	0,05	0,06	0,11	0,18	0,27	0,38	0,54	0,33	0,78	0,71	0,73
	DT.	1,00	1,00	1,00	1,00	1,00	5,00	1,05	1,11	1,22	1,24	1,28
	STD.	0,00	0,00	0,00	0,00	0,00	0,00	0,21	0,32	0,63	0,63	0,77
												72,24 AVG
50,00	NO.	10	13	24	40	58	76	93	104	101	100	98
	PCT.	0,08	0,10	0,19	0,32	0,47	0,67	0,91	1,10	1,26	1,32	1,33
	DT.	1,00	1,00	1,00	1,00	1,02	1,12	1,23	1,33	1,56	1,65	1,70
	STD.	0,00	0,00	0,00	0,00	0,13	0,31	0,49	0,63	1,17	1,27	1,51
												69,02 AVG
75,00	NO.	15	22	40	63	85	109	123	134	138	122	119
	PCT.	0,12	0,18	0,34	0,54	0,79	1,14	1,51	1,78	1,99	2,10	2,12
	DT.	1,00	1,00	1,05	1,08	1,16	1,31	1,34	1,44	1,92	2,16	2,24
	STD.	0,00	0,00	0,22	0,27	0,37	0,57	0,78	0,90	1,43	2,00	2,53
												72,89 AVG
100,00	NO.	18	29	52	81	107	140	157	166	160	151	148
	PCT.	0,14	0,23	0,43	0,70	1,05	1,53	2,05	2,38	2,63	2,76	2,79
	DT.	1,00	1,00	1,04	1,09	1,22	1,37	1,64	1,88	2,06	2,29	2,36
	STD.	0,00	0,00	0,18	0,32	0,46	0,64	0,88	1,08	1,63	2,18	2,88
												73,30 AVG
125,00	NO.	21	34	64	100	131	167	184	194	188	178	173
	PCT.	0,17	0,29	0,56	0,93	1,36	1,96	2,59	3,03	3,37	3,50	3,54
	DT.	1,00	1,06	1,09	1,17	1,31	1,47	1,77	1,96	2,24	2,47	2,57
	STD.	0,00	0,24	0,29	0,43	0,59	0,72	1,00	1,24	1,80	2,30	2,97
												73,51 AVG
150,00	NO.	25	39	72	113	149	188	218	223	220	207	201
	PCT.	0,20	0,34	0,65	1,08	1,60	2,29	3,14	3,69	4,15	4,33	4,41
	DT.	1,00	1,08	1,14	1,19	1,34	1,53	1,84	2,07	2,36	2,62	2,75
	STD.	0,00	0,27	0,39	0,44	0,62	0,81	1,08	1,34	1,91	2,38	3,05
												70,28 AVG
175,00	NO.	34	51	90	136	175	214	242	252	245	228	223
	PCT.	0,28	0,44	0,81	1,30	1,93	2,69	3,66	4,32	4,86	5,08	5,16
	DT.	1,03	1,08	1,12	1,20	1,38	1,57	1,89	2,15	2,49	2,79	2,90
	STD.	0,17	0,27	0,33	0,43	0,66	0,90	1,20	1,47	2,11	2,62	3,26
												72,34 AVG
200,00	NO.	40	62	104	154	202	248	277	289	276	255	248
	PCT.	0,33	0,53	0,94	1,52	2,28	3,16	4,26	5,08	5,69	5,98	6,07
	DT.	1,02	1,08	1,13	1,23	1,42	1,60	1,93	2,20	2,58	2,94	3,07
	STD.	0,16	0,27	0,37	0,52	0,69	0,91	1,23	1,53	2,19	2,73	3,35
												71,88 AVG
225,00	NO.	43	68	112	175	226	274	302	307	291	269	262
	PCT.	0,35	0,58	1,02	1,73	2,59	3,58	4,82	5,76	6,49	6,78	6,88
	DT.	1,02	1,07	1,14	1,24	1,44	1,64	2,00	2,35	2,70	3,16	3,29
	STD.	0,15	0,26	0,40	0,52	0,76	0,99	1,37	1,72	2,42	2,93	3,50
												71,99 AVG
250,00	NO.	48	76	126	192	247	305	332	332	312	284	276
	PCT.	0,40	0,67	1,21	2,00	2,97	4,12	5,47	6,54	7,36	7,69	7,83
	DT.	1,04	1,11	1,18	1,31	1,51	1,69	2,07	2,47	2,96	3,35	3,55
	STD.	0,20	0,35	0,49	0,66	0,90	1,09	1,46	1,92	2,69	3,34	3,97
												72,56 AVG
LIMIT	NO.	213	290	402	500	563	600	593	592	456	389	349
	PCT.	2,28	3,33	3,23	7,83	10,43	13,53	16,81	19,44	21,52	22,40	22,76
	DT.	1,34	1,44	1,64	1,96	2,32	2,83	3,55	4,41	5,91	7,22	8,17
	STD.	0,80	0,98	1,16	1,48	1,85	2,26	2,81	3,45	4,88	6,02	7,55
												95,87 AVG
	AVG.	612,58	593,55	549,10	516,56	494,10	480,26	460,92	451,88	446,36	444,07	443,87

TABLE B-21

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER ABS VC — X PARAMETER ARDDOT

TAPE NO. -0

Y		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT	
25.00	NO.	68	81	113	155	208	282	369	410	420	414	407	
	PCT.	0,54	0,65	0,90	1,24	1,66	2,25	3,04	3,62	4,15	4,45	4.57	
	DT.	1,00	1,00	1,00	1,00	1,00	1,00	1,03	1,11	1,24	1,35	1.41	
	STD.	0,00	0,00	0,00	0,00	0,00	0,00	0,18	0,32	0,58	0,83	0.94	
												94.69	AVG
50.00	NO.	132	165	233	316	399	515	606	643	634	618	605	
	PCT.	1,05	1,32	1,86	2,52	3,26	4,45	5,84	6,94	7,94	8,48	8.64	
	DT.	1,00	1,00	1,00	1,00	1,02	1,08	1,21	1,35	1,57	1,72	1.79	
	STD.	0,00	0,00	0,00	0,00	0,15	0,29	0,47	0,64	1,00	1,30	1.44	
												99.10	AVG
75.00	NO.	190	242	344	455	557	688	756	779	746	705	683	
	PCT.	1,52	1,93	2,78	3,76	4,99	6,86	8,84	10,52	11,84	12,59	12.82	
	DT.	1,00	1,00	1,01	1,04	1,12	1,25	1,47	1,69	1,99	2,24	2.35	
	STD.	0,00	0,00	0,11	0,18	0,34	0,50	0,78	1,02	1,48	1,99	2.33	
												101.82	AVG
100.00	NO.	228	308	418	530	641	786	860	870	814	755	726	
	PCT.	1,82	2,51	3,57	4,74	6,41	8,86	11,54	13,44	15,24	16,15	16.41	
	DT.	1,00	1,02	1,07	1,12	1,25	1,41	1,68	1,96	2,35	2,60	2.83	
	STD.	0,00	0,14	0,26	0,33	0,49	0,68	0,99	1,32	1,85	2,44	2.87	
												101.30	AVG
125.00	NO.	270	360	479	598	730	877	937	930	856	783	747	
	PCT.	2,17	2,99	4,29	5,76	7,91	10,94	14,14	16,64	18,52	19,58	19.91	
	DT.	1,01	1,04	1,12	1,21	1,36	1,56	1,89	2,24	2,71	3,13	3.34	
	STD.	0,09	0,20	0,35	0,46	0,61	0,83	1,16	1,58	2,18	2,86	3.36	
												100.88	AVG
150.00	NO.	314	417	544	676	821	971	1014	991	904	812	766	
	PCT.	2,59	3,63	5,15	6,94	9,47	13,02	16,74	19,69	21,90	23,12	23.50	
	DT.	1,03	1,09	1,19	1,29	1,44	1,68	2,07	2,49	3,04	3,57	3.84	
	STD.	0,18	0,29	0,42	0,54	0,69	0,96	1,30	1,75	2,42	3,22	3.82	
												101.67	AVG
175.00	NO.	382	498	639	787	930	1070	1102	1055	951	841	795	
	PCT.	3,23	4,49	6,20	8,30	11,21	15,20	19,34	22,66	25,13	26,49	26.89	
	DT.	1,06	1,13	1,22	1,32	1,51	1,78	2,20	2,69	3,31	3,95	4.24	
	STD.	0,24	0,34	0,45	0,58	0,79	1,08	1,46	1,97	2,71	3,63	4.22	
												105.29	AVG
200.00	NO.	431	563	703	865	1012	1153	1180	1117	988	859	807	
	PCT.	3,76	5,21	7,12	9,52	12,63	17,28	21,90	25,67	28,38	29,90	30.37	
	DT.	1,09	1,16	1,27	1,38	1,59	1,88	2,33	2,88	3,60	4,36	4.71	
	STD.	0,30	0,38	0,51	0,64	0,86	1,17	1,50	2,10	3,05	4,20	5.02	
												105.46	AVG
225.00	NO.	453	588	734	914	1066	1202	1217	1131	983	846	791	
	PCT.	4,02	5,59	7,67	10,38	14,05	18,93	24,05	28,25	31,21	32,86	33.30	
	DT.	1,11	1,19	1,31	1,42	1,65	1,97	2,48	3,13	3,98	4,86	5.27	
	STD.	0,32	0,42	0,56	0,69	0,93	1,27	1,75	2,41	3,39	4,70	5.64	
												106.45	AVG
250.00	NO.	482	621	780	970	1124	1265	1279	1173	1011	866	800	
	PCT.	4,44	6,11	8,92	11,55	15,55	20,89	26,38	30,91	34,13	35,88	36.44	
	DT.	1,15	1,23	1,37	1,49	1,73	2,07	2,58	3,30	4,23	5,19	5.71	
	STD.	0,38	0,47	0,63	0,80	1,03	1,37	1,86	2,58	3,66	5,17	6.43	
												106.80	AVG
LIMIT	NO.	843	1020	1223	1430	1574	1696	1490	1101	593	193	11	
	PCT.	14,91	18,74	25,24	33,97	44,92	59,31	74,13	86,05	94,10	98,41	99.92	
	DT.	2,08	2,30	2,59	2,98	3,58	4,48	6,23	9,79	19,88	63,89	1138.18	
	STD.	1,35	1,67	2,01	2,40	3,80	4,12	6,18	9,94	22,55	71,25	798.41	
												119.44	AVG
	AVG.	517,30	508,84	494,98	483,37	472,06	463,09	458,88	456.11	453,59	452,01	452.48	

TABLE B-22

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER ABS VC — X PARAMETER A WKDF

TAPE NO. 1

		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
25.00	NO.	2	3	3	4	5	5	8	16	24	35	43
	PCT.	0.02	0.02	0.02	0.03	0.05	0.05	0.08	0.15	0.22	0.38	0.57
	DT.	1.00	1.00	1.00	1.00	1.20	1.20	1.25	1.19	1.17	1.37	1.67
	STD.	0.00	0.00	0.00	0.00	0.40	0.40	0.43	0.39	0.37	1.22	1.68
												1.82 AVG
50.00	NO.	5	6	6	10	16	18	25	34	52	66	72
	PCT.	0.04	0.05	0.05	0.08	0.14	0.15	0.22	0.32	0.49	0.77	1.03
	DT.	1.00	1.00	1.00	1.00	1.06	1.06	1.08	1.18	1.17	1.45	1.79
	STD.	0.00	0.00	0.00	0.00	0.24	0.23	0.27	0.45	0.43	1.13	1.94
												2.09 AVG
75.00	NO.	6	7	8	13	19	24	35	46	69	85	92
	PCT.	0.05	0.06	0.06	0.10	0.16	0.20	0.30	0.42	0.69	1.00	1.40
	DT.	1.00	1.00	1.00	1.00	1.05	1.04	1.06	1.15	1.25	1.59	2.02
	STD.	0.00	0.00	0.00	0.00	0.22	0.20	0.23	0.42	0.55	1.12	3.16
												1.90 AVG
100.00	NO.	11	12	15	20	27	33	47	62	88	106	111
	PCT.	0.09	0.10	0.12	0.16	0.23	0.29	0.42	0.61	0.95	1.44	1.93
	DT.	1.00	1.00	1.00	1.00	1.07	1.09	1.13	1.23	1.35	1.71	2.18
	STD.	0.00	0.00	0.00	0.00	0.26	0.29	0.33	0.55	0.72	1.18	3.19
												2.25 AVG
125.00	NO.	12	14	17	23	31	39	52	71	97	117	121
	PCT.	0.10	0.11	0.14	0.18	0.27	0.36	0.53	0.76	1.17	1.76	2.32
	DT.	1.00	1.00	1.00	1.00	1.19	1.15	1.27	1.34	1.52	1.89	2.40
	STD.	0.00	0.00	0.00	0.00	0.30	0.36	0.62	0.71	0.84	1.31	3.27
												2.15 AVG
150.00	NO.	12	15	20	28	36	48	64	85	115	139	146
	PCT.	0.10	0.12	0.16	0.22	0.31	0.46	0.69	0.98	1.48	2.24	2.91
	DT.	1.00	1.00	1.00	1.00	1.08	1.21	1.34	1.45	1.62	2.02	2.40
	STD.	0.00	0.00	0.00	0.00	0.28	0.41	0.62	0.77	0.64	1.41	3.21
												1.98 AVG
175.00	NO.	19	22	27	34	44	59	77	100	139	164	160
	PCT.	0.16	0.18	0.22	0.30	0.40	0.59	0.84	1.17	1.79	2.67	3.41
	DT.	1.05	1.65	1.04	1.09	1.14	1.25	1.36	1.46	1.61	2.04	2.54
	STD.	0.22	0.21	0.19	0.37	0.40	0.60	0.70	0.87	1.01	1.51	3.30
												2.20 AVG
200.00	NO.	21	27	34	42	57	73	92	122	166	195	201
	PCT.	0.18	0.22	0.28	0.36	0.50	0.70	0.99	1.39	2.11	3.12	4.00
	DT.	1.05	1.04	1.03	1.07	1.11	1.21	1.35	1.43	1.60	2.01	2.49
	STD.	0.21	0.19	0.17	0.34	0.36	0.55	0.68	0.86	1.01	1.50	4.01
												2.16 AVG
225.00	NO.	23	30	38	49	64	79	106	140	180	213	217
	PCT.	0.19	0.25	0.31	0.42	0.58	0.81	1.17	1.67	2.45	3.65	4.62
	DT.	1.04	1.03	1.03	1.08	1.14	1.28	1.38	1.49	1.73	2.15	2.67
	STD.	0.20	0.18	0.16	0.34	0.39	0.61	0.72	0.91	1.10	1.63	4.24
												2.14 AVG
250.00	NO.	25	33	42	54	70	84	115	153	198	237	242
	PCT.	0.21	0.27	0.34	0.47	0.64	0.87	1.28	1.87	2.82	4.18	5.28
	DT.	1.04	1.03	1.02	1.09	1.14	1.30	1.39	1.53	1.78	2.21	2.73
	STD.	0.20	0.17	0.15	0.35	0.39	0.67	0.81	0.98	1.17	1.69	4.15
												2.03 AVG
LIMIT	NO.	204	251	296	356	439	524	631	764	870	733	421
	PCT.	1.81	2.39	3.00	4.01	5.62	7.64	10.81	15.95	24.21	34.38	40.49
	DT.	1.11	1.20	1.27	1.41	1.60	1.83	2.15	2.62	3.49	5.88	12.05
	STD.	0.33	0.42	0.52	0.66	0.86	1.14	1.65	2.18	2.93	5.05	9.58
												2.31 AVG
	AVG.	681.78	685.58	678.28	665.50	663.05	655.38	650.80	643.73	647.90	645.17	630.83

TABLE B-23

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER ABS VC

X PARAMETER A WKDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.00	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
25.00	NO.	4	4	6	10	12	20	24	36	43	62	71
	PCT.	0.03	0.03	0.06	0.09	0.10	0.18	0.24	0.37	0.43	0.63	0.73
	DT.	1.00	1.00	1.17	1.10	1.08	1.15	1.25	1.28	1.26	1.27	1.28
	STD.	0.00	0.00	0.37	0.30	0.28	0.36	0.52	0.69	0.65	0.74	0.77
												2.14 AVG
50.00	NO.	4	4	7	13	16	25	35	51	65	98	98
	PCT.	0.03	0.03	0.06	0.11	0.17	0.29	0.42	0.61	0.77	1.17	1.33
	DT.	1.00	1.00	1.14	1.08	1.31	1.44	1.49	1.51	1.49	1.62	1.70
	STD.	0.00	0.00	0.35	0.27	0.58	0.64	1.02	1.07	1.08	1.32	1.51
												1.76 AVG
75.00	NO.	5	7	11	17	22	33	46	71	92	115	119
	PCT.	0.04	0.06	0.10	0.15	0.23	0.40	0.59	0.90	1.25	1.82	2.12
	DT.	1.00	1.00	1.09	1.12	1.32	1.52	1.61	1.59	1.70	1.98	2.24
	STD.	0.00	0.00	0.29	0.32	0.55	0.74	1.39	1.66	1.67	1.94	2.53
												1.59 AVG
100.00	NO.	8	11	15	23	30	46	65	98	119	144	148
	PCT.	0.07	0.10	0.14	0.22	0.31	0.54	0.81	1.23	1.68	2.39	2.79
	DT.	1.13	1.09	1.20	1.17	1.30	1.48	1.57	1.57	1.76	2.08	2.36
	STD.	0.33	0.29	0.40	0.38	0.59	0.74	1.26	1.48	1.64	1.97	2.88
												1.78 AVG
125.00	NO.	8	13	20	30	40	56	75	112	141	174	173
	PCT.	0.07	0.11	0.18	0.27	0.40	0.66	0.96	1.45	2.04	3.00	3.54
	DT.	1.13	1.08	1.15	1.13	1.25	1.48	1.60	1.63	1.82	2.16	2.57
	STD.	0.33	0.27	0.36	0.34	0.58	0.73	1.21	1.46	1.67	2.00	2.97
												1.66 AVG
150.00	NO.	8	13	22	34	45	66	91	135	174	204	201
	PCT.	0.07	0.11	0.20	0.30	0.44	0.75	1.13	1.78	2.55	3.71	4.41
	DT.	1.13	1.08	1.14	1.12	1.22	1.42	1.56	1.65	1.84	2.28	2.75
	STD.	0.33	0.27	0.34	0.32	0.55	0.70	1.17	1.42	1.67	2.08	3.05
												1.54 AVG
175.00	NO.	9	14	25	38	53	76	108	159	201	236	223
	PCT.	0.08	0.12	0.22	0.34	0.51	0.85	1.33	2.12	3.05	4.41	5.16
	DT.	1.11	1.07	1.12	1.11	1.21	1.39	1.55	1.67	1.90	2.34	2.98
	STD.	0.31	0.26	0.32	0.31	0.53	0.67	1.11	1.37	1.67	2.89	3.26
												1.52 AVG
200.00	NO.	11	17	31	46	63	96	128	182	231	266	248
	PCT.	0.10	0.14	0.27	0.42	0.61	1.05	1.58	2.51	3.67	5.24	6.07
	DT.	1.09	1.06	1.10	1.13	1.21	1.36	1.55	1.73	1.99	2.47	3.07
	STD.	0.29	0.24	0.30	0.34	0.51	0.65	1.07	1.36	1.67	2.19	3.35
												1.55 AVG
225.00	NO.	13	20	34	55	74	111	146	196	248	281	262
	PCT.	0.11	0.17	0.30	0.49	0.71	1.21	1.80	2.81	4.15	5.92	6.88
	DT.	1.03	1.05	1.09	1.13	1.20	1.36	1.54	1.80	2.10	2.64	3.29
	STD.	0.27	0.22	0.28	0.33	0.49	0.64	1.05	1.37	1.73	2.36	3.50
												1.55 AVG
250.00	NO.	15	22	38	62	85	128	163	215	261	297	276
	PCT.	0.13	0.18	0.34	0.56	0.81	1.40	2.10	3.23	4.74	6.68	7.83
	DT.	1.07	1.05	1.11	1.13	1.20	1.37	1.61	1.88	2.28	2.82	3.55
	STD.	0.25	0.21	0.31	0.34	0.48	0.66	1.16	1.48	1.94	2.64	3.97
												1.54 AVG
LIMIT	NO.	138	166	217	291	349	419	469	537	563	483	349
	PCT.	1.23	1.54	2.08	2.95	3.98	5.47	7.45	10.62	14.94	19.80	22.76
	DT.	1.17	1.16	1.20	1.27	1.43	1.63	1.99	2.48	3.33	5.14	8.17
	STD.	0.34	0.39	0.42	0.49	0.62	0.80	1.21	1.72	2.44	3.98	7.55
												3.12 AVG
	AVG.	714.33	689.23	630.07	598.55	577.37	531.42	497.60	474.53	465.78	451.57	443.87

TABLE B-24

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.90

Y PARAMETER ABS VC — X PARAMETER A WIDF

TAPE NO. 1

		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
25.00	NO.	38	43	51	63	95	121	160	235	303	369	407
	PCT.	0.33	0.37	0.45	0.55	0.84	1.12	1.81	2.31	3.07	4.02	4.57
	DT.	1.08	1.07	1.10	1.10	1.11	1.16	1.18	1.23	1.27	1.37	1.41
	STD.	0.27	0.25	0.30	0.29	0.31	0.39	0.42	0.85	0.64	0.84	0.94
												3.10 AVG
50.00	NO.	63	74	87	119	173	211	283	384	491	577	605
	PCT.	0.55	0.65	0.77	1.06	1.58	2.09	2.89	4.27	5.83	7.77	8.64
	DT.	1.10	1.11	1.11	1.12	1.14	1.24	1.28	1.39	1.49	1.69	1.70
	STD.	0.29	0.35	0.35	0.37	0.40	0.52	0.62	0.78	0.89	1.24	1.44
												3.12 AVG
75.00	NO.	83	100	122	164	231	287	377	490	615	676	683
	PCT.	0.75	0.90	1.13	1.54	2.27	3.05	4.25	6.13	8.66	11.40	12.82
	DT.	1.13	1.13	1.16	1.17	1.23	1.33	1.41	1.57	1.76	2.13	2.35
	STD.	0.40	0.42	0.49	0.59	0.64	0.75	0.93	1.13	1.35	1.83	2.33
												3.26 AVG
100.00	NO.	109	134	162	218	293	361	464	593	708	744	726
	PCT.	1.03	1.25	1.55	2.02	2.94	3.99	5.59	8.02	11.21	14.70	16.41
	DT.	1.18	1.17	1.20	1.20	1.26	1.39	1.51	1.69	1.98	2.48	2.83
	STD.	0.47	0.47	0.51	0.49	0.68	0.83	1.05	1.27	1.55	2.16	2.87
												3.37 AVG
125.00	NO.	130	158	192	256	339	416	534	665	778	791	767
	PCT.	1.25	1.50	1.88	2.53	3.53	4.83	6.81	9.70	13.61	17.02	19.91
	DT.	1.20	1.19	1.23	1.24	1.30	1.45	1.66	1.83	2.21	2.82	3.34
	STD.	0.49	0.48	0.55	0.64	0.76	0.92	1.12	1.38	1.77	2.56	3.36
												3.42 AVG
150.00	NO.	149	178	220	291	376	473	604	736	837	838	766
	PCT.	1.42	1.72	2.19	2.92	4.05	5.62	7.92	11.35	16.00	20.97	23.50
	DT.	1.19	1.21	1.25	1.26	1.35	1.49	1.64	1.93	2.40	3.17	3.84
	STD.	0.47	0.49	0.58	0.65	0.82	0.96	1.20	1.49	1.98	2.98	3.82
												3.34 AVG
175.00	NO.	181	212	258	334	431	540	678	824	924	880	795
	PCT.	1.72	2.06	2.59	3.40	4.67	6.46	9.09	13.04	18.36	24.07	26.09
	DT.	1.19	1.22	1.26	1.28	1.36	1.56	1.68	1.98	2.49	3.40	4.24
	STD.	0.46	0.50	0.57	0.65	0.81	0.97	1.21	1.56	2.12	3.14	4.22
												3.52 AVG
200.00	NO.	206	242	293	374	480	606	748	886	988	924	807
	PCT.	1.99	2.39	3.03	3.03	5.34	7.39	10.33	14.76	20.75	27.16	30.37
	DT.	1.21	1.24	1.30	1.32	1.39	1.53	1.73	2.09	2.65	3.60	4.71
	STD.	0.47	0.54	0.64	0.72	0.86	1.00	1.27	1.71	2.33	3.44	5.02
												3.57 AVG
225.00	NO.	220	260	313	407	512	640	795	932	1003	926	791
	PCT.	2.16	2.61	3.28	4.33	5.05	8.06	11.27	16.15	22.65	29.78	33.30
	DT.	1.23	1.26	1.31	1.33	1.43	1.58	1.78	2.17	2.83	4.03	5.27
	STD.	0.50	0.56	0.66	0.74	0.94	1.08	1.33	1.81	2.58	4.07	5.64
												3.56 AVG
250.00	NO.	235	278	339	439	554	697	848	991	1053	951	880
	PCT.	2.31	2.75	3.55	4.69	6.34	8.77	12.25	17.61	24.67	32.50	36.64
	DT.	1.23	1.26	1.31	1.34	1.43	1.58	1.81	2.23	2.94	4.28	5.71
	STD.	0.56	0.56	0.65	0.74	0.93	1.07	1.37	1.92	2.74	4.47	6.43
												3.48 AVG
LIMIT	NO.	472	541	637	798	963	1157	1352	1520	1458	795	11
	PCT.	7.53	9.01	11.03	14.21	18.70	24.53	33.15	46.41	65.83	87.93	99.92
	DT.	2.00	2.09	2.17	2.23	2.43	2.66	3.07	3.83	5.66	13.06	1130.18
	STD.	1.09	1.22	1.33	1.50	1.75	2.01	2.59	3.65	5.85	16.51	798.41
												4.05 AVG
	AVG.	513.20	511.23	494.69	484.01	474.08	458.82	447.14	440.02	445.21	449.50	452.40

TABLE B-25

PARAMETER INTERACTION SFF NBSE
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA= 60,00

Y PARAMETER ABS VC — X PARAMETER A WJDF

TAPE NO. 1

Y PARAMETER ABS VC		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT
25,00	NE,	1	3	3	7	9	16	13	15	24	35	43
	PCT,	0,01	0,02	0,02	0,06	0,08	0,10	0,13	0,14	0,22	0,37	0,57
	DT,	1,00	1,00	1,00	1,14	1,11	1,30	1,23	1,20	1,17	1,31	1,07
	STD,	0,00	0,00	0,00	0,35	0,31	0,46	0,42	0,40	0,37	1,04	1,68
												2,98 AVG
50,00	NE,	6	9	10	15	19	22	27	35	51	65	72
	PCT,	0,05	0,09	0,10	0,15	0,19	0,25	0,29	0,35	0,50	0,75	1,03
	DT,	1,00	1,22	1,20	1,27	1,26	1,41	1,33	1,26	1,24	1,45	1,79
	STD,	0,00	0,63	0,60	0,57	0,55	0,65	0,61	0,55	0,51	1,14	1,94
												3,10 AVG
75,00	NE,	9	12	13	18	25	30	35	49	70	85	92
	PCT,	0,07	0,11	0,12	0,18	0,24	0,31	0,37	0,49	0,72	1,06	1,48
	DT,	1,00	1,17	1,15	1,22	1,20	1,30	1,31	1,24	1,29	1,56	2,02
	STD,	0,00	0,55	0,53	0,53	0,49	0,59	0,62	0,55	0,59	1,17	3,16
												3,02 AVG
100,00	NE,	12	15	17	23	30	37	45	63	88	105	111
	PCT,	0,10	0,14	0,16	0,22	0,30	0,38	0,48	0,65	0,97	1,44	1,93
	DT,	1,00	1,20	1,18	1,22	1,23	1,30	1,33	1,30	1,39	1,71	2,18
	STD,	0,00	0,54	0,51	0,51	0,62	0,69	0,73	0,66	0,80	1,31	3,19
												2,84 AVG
125,00	NE,	13	17	19	25	34	42	53	69	94	116	121
	PCT,	0,10	0,16	0,18	0,24	0,33	0,46	0,59	0,77	1,15	1,76	2,32
	DT,	1,00	1,16	1,16	1,20	1,21	1,38	1,40	1,41	1,53	1,98	2,40
	STD,	0,00	0,51	0,49	0,49	0,58	0,90	0,96	0,87	0,84	1,36	3,27
												2,58 AVG
150,00	NE,	14	20	22	30	40	46	61	82	117	141	146
	PCT,	0,11	0,18	0,21	0,29	0,38	0,54	0,71	0,99	1,49	2,20	2,91
	DT,	1,00	1,15	1,18	1,20	1,20	1,42	1,46	1,51	1,60	1,96	2,49
	STD,	0,00	0,48	0,49	0,46	0,56	0,89	0,93	0,98	0,95	1,40	3,21
												2,33 AVG
175,00	NE,	17	24	28	38	48	59	76	100	142	162	168
	PCT,	0,14	0,22	0,26	0,37	0,47	0,65	0,89	1,20	1,83	2,61	3,41
	DT,	1,00	1,13	1,18	1,21	1,23	1,39	1,46	1,50	1,61	2,02	2,54
	STD,	0,00	0,44	0,54	0,52	0,68	0,92	0,95	0,93	0,97	1,48	3,38
												2,38 AVG
200,00	NE,	17	25	31	42	55	67	90	117	168	199	201
	PCT,	0,14	0,23	0,30	0,41	0,53	0,73	1,02	1,39	2,12	3,08	4,00
	DT,	1,06	1,10	1,19	1,21	1,22	1,36	1,42	1,49	1,58	1,94	2,49
	STD,	0,24	0,46	0,53	0,51	0,65	0,88	0,94	0,98	1,02	1,45	4,01
												2,25 AVG
225,00	NE,	18	27	35	47	60	72	96	123	177	215	217
	PCT,	0,15	0,25	0,33	0,46	0,60	0,82	1,16	1,60	2,46	3,56	4,32
	DT,	1,06	1,15	1,17	1,23	1,25	1,43	1,51	1,63	1,74	2,87	2,67
	STD,	0,23	0,45	0,51	0,51	0,65	0,97	1,01	1,11	1,14	1,55	4,24
												2,14 AVG
250,00	NE,	19	28	36	48	63	77	102	130	194	235	242
	PCT,	0,16	0,26	0,34	0,47	0,62	0,87	1,24	1,73	2,75	4,04	5,28
	DT,	1,05	1,14	1,17	1,23	1,24	1,42	1,52	1,67	1,77	2,15	2,73
	STD,	0,22	0,44	0,50	0,51	0,64	0,96	1,01	1,21	1,21	1,61	4,15
												2,00 AVG
LIMIT	NE,	223	271	331	379	429	503	589	699	783	715	421
	PCT,	2,23	2,88	3,88	4,99	6,37	8,49	11,60	16,63	24,61	34,38	40,49
	DT,	1,25	1,33	1,47	1,65	1,86	2,12	2,47	2,98	3,04	6,03	12,05
	STD,	0,51	0,58	0,71	0,87	1,14	1,48	1,83	2,29	3,32	4,80	9,56
												2,50 AVG
	AVG,	742,66	724,69	716,29	696,12	694,13	692,05	694,79	691,09	680,84	659,88	639,83

TABLE B-26

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225,86 LAMDA = 60,00

Y PARAMETER ABS VC — X PARAMETER A WJDF

TAPE NO. 1

Y		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT
25,00	NE,	5	7	8	13	16	19	19	29	46	63	71
	PCT,	0,05	0,06	0,07	0,11	0,14	0,16	0,16	0,26	0,42	0,61	0,73
	DT,	1,20	1,14	1,13	1,08	1,66	1,05	1,05	1,14	1,15	1,22	1,28
	STD,	0,40	0,35	0,33	0,27	0,24	0,22	0,22	0,34	0,42	0,65	0,77
												2,48 AVG
50,00	NE,	5	6	9	17	23	28	33	46	66	89	98
	PCT,	0,05	0,07	0,08	0,14	0,20	0,26	0,32	0,49	0,75	1,13	1,33
	DT,	1,20	1,13	1,11	1,06	1,09	1,14	1,21	1,35	1,42	1,60	1,78
	STD,	0,40	0,33	0,31	0,24	0,28	0,35	0,59	0,76	0,76	1,27	1,51
												1,93 AVG
75,00	NE,	5	8	10	21	30	41	48	65	89	111	119
	PCT,	0,05	0,07	0,09	0,18	0,28	0,39	0,49	0,79	1,20	1,79	2,12
	DT,	1,20	1,13	1,10	1,05	1,17	1,20	1,29	1,52	1,69	2,02	2,24
	STD,	0,40	0,33	0,30	0,21	0,37	0,45	0,64	1,05	1,18	2,11	2,53
												1,65 AVG
100,00	NE,	6	13	16	27	37	49	64	89	116	144	148
	PCT,	0,06	0,11	0,14	0,22	0,35	0,49	0,68	1,11	1,59	2,46	2,79
	DT,	1,17	1,08	1,06	1,04	1,19	1,24	1,33	1,56	1,72	2,09	2,36
	STD,	0,37	0,27	0,24	0,19	0,46	0,55	0,71	1,17	1,25	2,19	2,88
												1,64 AVG
125,00	NE,	8	16	21	35	51	64	80	105	135	175	173
	PCT,	0,07	0,14	0,18	0,29	0,46	0,63	0,87	1,37	2,08	3,07	3,54
	DT,	1,13	1,06	1,05	1,03	1,14	1,23	1,36	1,64	1,85	2,20	2,57
	STD,	0,33	0,24	0,21	0,17	0,40	0,55	0,73	1,16	1,37	2,33	2,97
												1,61 AVG
150,00	NE,	10	19	25	42	58	73	91	126	161	204	201
	PCT,	0,09	0,16	0,21	0,35	0,53	0,73	1,00	1,64	2,44	3,79	4,41
	DT,	1,10	1,05	1,04	1,05	1,16	1,25	1,37	1,63	1,98	2,33	2,75
	STD,	0,30	0,22	0,20	0,21	0,41	0,54	0,72	1,18	1,41	2,37	3,85
												1,59 AVG
175,00	NE,	14	24	29	49	68	89	108	149	184	228	223
	PCT,	0,12	0,20	0,26	0,42	0,64	0,90	1,23	2,00	2,91	4,48	5,16
	DT,	1,07	1,04	1,10	1,08	1,18	1,27	1,43	1,68	1,98	2,46	2,98
	STD,	0,26	0,20	0,30	0,27	0,42	0,56	0,76	1,19	1,92	2,63	3,26
												1,64 AVG
200,00	NE,	16	27	38	56	78	104	126	174	211	259	248
	PCT,	0,14	0,22	0,33	0,50	0,76	1,09	1,47	2,33	3,41	5,27	6,07
	DT,	1,06	1,04	1,06	1,13	1,22	1,31	1,46	1,68	2,02	2,55	3,07
	STD,	0,24	0,19	0,27	0,33	0,47	0,61	0,81	1,18	1,54	2,69	3,35
												1,63 AVG
225,00	NE,	21	35	48	66	91	118	142	189	231	277	262
	PCT,	0,18	0,30	0,42	0,61	0,85	1,26	1,68	2,61	3,82	5,92	6,88
	DT,	1,05	1,06	1,08	1,13	1,21	1,34	1,48	1,73	2,07	2,68	3,29
	STD,	0,21	0,23	0,28	0,34	0,46	0,61	0,81	1,24	1,63	2,75	3,50
												1,67 AVG
250,00	NE,	22	37	52	72	96	124	152	207	249	297	276
	PCT,	0,19	0,32	0,45	0,65	0,97	1,40	1,88	2,95	4,35	6,74	7,83
	DT,	1,09	1,08	1,10	1,14	1,26	1,41	1,55	1,79	2,19	2,85	3,55
	STD,	0,29	0,27	0,29	0,35	-0,58	0,72	0,89	1,32	1,83	3,12	3,97
												1,64 AVG
LIMIT	NE,	172	216	261	316	378	427	466	542	553	488	349
	PCT,	1,60	2,12	2,72	3,51	4,55	5,87	7,75	10,57	14,67	20,06	22,76
	DT,	1,17	1,23	1,31	1,39	1,51	1,72	2,08	2,44	3,32	5,15	8,17
	STD,	0,37	0,42	0,50	0,57	0,69	0,88	1,22	1,58	2,42	4,12	7,55
												3,24 AVG
	A.C.,	670,50	531,61	415,00	580,45	551,49	531,19	516,71	492,55	478,94	453,82	443,87

TABLE B-27

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225,00 LAMBA = 60,00

Y PARAMETER ABS VC — X PARAMETER A WJDF

TAPE NO. 1

Y		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT
25,00	NE,	36	46	52	79	106	139	175	225	308	374	407
	PCT,	0,32	0,40	0,45	0,69	0,94	1,32	1,78	2,32	3,19	4,00	4,57
	DT,	1,11	1,09	1,08	1,09	1,11	1,19	1,22	1,29	1,30	1,34	1,41
	STD,	0,31	0,28	0,27	0,28	0,32	0,48	0,54	0,66	0,66	0,77	0,94
												3,67 AVG
50,00	NE,	66	83	99	144	192	247	306	384	488	572	685
	PCT,	0,58	0,74	0,89	1,29	1,77	2,49	3,27	4,47	5,98	7,63	8,64
	DT,	1,11	1,12	1,12	1,13	1,16	1,26	1,34	1,46	1,53	1,67	1,79
	STD,	0,31	0,36	0,36	0,35	0,38	0,56	0,69	0,88	1,01	1,21	1,44
												3,39 AVG
75,00	NE,	94	117	143	194	264	337	409	500	604	683	683
	PCT,	0,81	1,02	1,26	1,76	2,51	3,57	4,68	6,51	8,87	11,38	12,02
	DT,	1,09	1,09	1,10	1,14	1,19	1,33	1,44	1,63	1,84	2,07	2,35
	STD,	0,28	0,32	0,33	0,36	0,43	0,62	0,81	1,88	1,36	1,76	2,33
												3,47 AVG
100,00	NE,	117	148	180	237	321	409	502	591	686	748	726
	PCT,	1,07	1,36	1,67	2,26	3,22	4,55	6,88	8,35	11,36	14,50	16,41
	DT,	1,15	1,15	1,16	1,19	1,26	1,39	1,52	1,77	2,87	2,43	2,83
	STD,	0,35	0,39	0,40	0,45	0,55	0,73	0,98	1,24	1,61	2,14	2,87
												3,63 AVG
125,00	NE,	136	169	211	278	372	466	567	656	742	798	747
	PCT,	1,26	1,57	2,00	2,71	3,84	5,44	7,29	9,99	13,64	17,61	19,91
	DT,	1,16	1,17	1,19	1,22	1,29	1,46	1,61	1,91	2,38	2,77	3,34
	STD,	0,41	0,44	0,48	0,52	0,62	0,82	1,06	1,42	1,86	2,46	3,36
												3,56 AVG
150,00	NE,	161	199	243	319	419	523	623	714	802	847	766
	PCT,	1,50	1,89	2,36	3,19	4,42	6,26	8,38	11,56	15,91	20,69	23,58
	DT,	1,17	1,19	1,22	1,25	1,32	1,50	1,69	2,03	2,49	3,06	3,84
	STD,	0,44	0,49	0,54	0,56	0,67	0,89	1,25	1,57	2,05	2,74	3,82
												3,56 AVG
175,00	NE,	189	235	285	375	490	605	707	805	881	896	795
	PCT,	1,79	2,25	2,83	3,82	5,21	7,31	9,73	13,34	18,29	23,72	26,69
	DT,	1,19	1,20	1,24	1,28	1,33	1,51	1,72	2,08	2,60	3,31	4,24
	STD,	0,45	0,50	0,57	0,62	0,70	0,94	1,28	1,62	2,23	3,02	4,22
												3,65 AVG
200,00	NE,	216	264	327	426	557	678	781	869	940	945	807
	PCT,	2,10	2,60	3,32	4,48	6,87	8,36	11,06	15,02	20,56	26,88	30,37
	DT,	1,22	1,23	1,27	1,32	1,36	1,55	1,77	2,17	2,74	3,55	4,71
	STD,	0,51	0,56	0,62	0,67	0,74	0,98	1,26	1,70	2,41	3,39	5,02
												3,71 AVG
225,00	NE,	232	292	355	461	595	715	826	914	966	953	791
	PCT,	2,28	2,83	3,63	4,88	6,57	9,06	12,88	16,32	22,36	29,33	33,38
	DT,	1,23	1,26	1,28	1,33	1,38	1,59	1,82	2,24	2,90	3,86	5,27
	STD,	0,53	0,59	0,64	0,69	0,77	1,03	1,32	1,83	2,98	3,74	5,64
												3,71 AVG
250,00	NE,	246	301	376	484	627	751	866	966	1013	985	808
	PCT,	2,45	3,04	3,88	5,16	7,04	9,73	12,94	17,64	24,27	32,05	36,44
	DT,	1,25	1,27	1,29	1,33	1,41	1,62	1,87	2,29	3,80	4,08	5,71
	STD,	0,55	0,60	0,65	0,70	0,79	1,05	1,35	1,63	2,69	4,16	6,43
												3,66 AVG
LIMIT	NE,	507	600	720	856	1044	1222	1365	1463	1332	833	11
	PCT,	8,36	10,15	12,63	15,83	20,34	26,52	35,09	47,58	65,80	87,69	99,92
	DT,	2,07	2,12	2,20	2,32	2,44	2,72	3,22	4,08	6,19	13,19	1138,18
	STD,	1,08	1,19	1,33	1,52	1,73	2,13	2,72	3,77	6,50	14,70	798,41
												4,16 AVG
	AVG,	532,23	524,92	516,35	498,47	481,34	467,21	464,24	460,47	460,97	457,23	452,48

c. Pulse main beam clutter (DELTAR)

i. Range acceleration (ARDDOT)

(a) Nose sector (AI radar coverage) - Table B-28

(b) Tail sector - Table B-29

(c) Full sphere - Table B-30

ii. Azimuth line of sight acceleration (AWKDF)

(a) Nose sector (AI radar coverage) - Table B-31

(b) Tail sector - Table B-32

(c) Full sphere - Table B-33

iii. Elevation line of sight acceleration (AWJDF)

(a) Nose sector (AI radar coverage) - Table B-34

(b) Tail sector - Table B-35

(c) Full sphere - Table B-36

TABLE B-28

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

* PARAMETER DELTAR — * PARAMETER ARDDOT

TAPE NO. 1

PARAMETER DELTAR		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT	
100.00	NO.	0	0	1	1	2	9	18	10	10	12	12	
	PCT.	0.00	0.00	0.01	0.01	0.02	0.07	0.09	0.09	0.09	0.10	0.10	
	DT.	0.00	0.00	1.00	1.00	1.00	1.00	1.10	1.10	1.10	1.08	1.08	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.30	0.30	0.28	0.28	
												55.07	AVG
200.00	NO.	0	0	1	1	3	17	25	27	28	30	30	
	PCT.	0.00	0.00	0.01	0.01	0.02	0.14	0.22	0.23	0.24	0.26	0.26	
	DT.	0.00	0.00	1.00	1.00	1.00	1.06	1.08	1.07	1.07	1.07	1.07	
	STD.	0.00	0.00	0.00	0.00	0.00	0.24	0.27	0.26	0.26	0.25	0.25	
												52.66	AVG
300.00	NO.	1	1	2	4	10	27	40	44	46	48	48	
	PCT.	0.01	0.01	0.02	0.03	0.08	0.23	0.35	0.38	0.40	0.42	0.42	
	DT.	1.00	1.00	1.00	1.00	1.00	1.07	1.10	1.09	1.09	1.08	1.08	
	STD.	0.00	0.00	0.00	0.00	0.00	0.38	0.37	0.36	0.35	0.34	0.34	
												60.99	AVG
400.00	NO.	2	2	3	7	16	38	55	59	62	65	65	
	PCT.	0.02	0.02	0.02	0.06	0.14	0.34	0.50	0.54	0.57	0.59	0.60	
	DT.	1.00	1.00	1.00	1.14	1.13	1.11	1.15	1.15	1.15	1.14	1.15	
	STD.	0.00	0.00	0.00	0.35	0.48	0.45	0.52	0.51	0.50	0.49	0.50	
												63.68	AVG
500.00	NO.	2	2	3	11	24	49	68	73	76	78	78	
	PCT.	0.02	0.02	0.02	0.10	0.22	0.49	0.70	0.76	0.78	0.81	0.82	
	DT.	1.00	1.00	1.00	1.18	1.17	1.24	1.29	1.30	1.29	1.31	1.32	
	STD.	0.00	0.00	0.00	0.39	0.47	0.59	0.64	0.63	0.62	0.63	0.63	
												63.92	AVG
600.00	NO.	2	2	3	13	26	55	74	79	82	84	84	
	PCT.	0.02	0.02	0.02	0.12	0.26	0.58	0.83	0.91	0.94	0.97	0.98	
	DT.	1.00	1.00	1.00	1.15	1.23	1.33	1.41	1.44	1.44	1.45	1.46	
	STD.	0.00	0.00	0.00	0.36	0.58	0.63	0.70	0.71	0.70	0.79	0.70	
												62.44	AVG
700.00	NO.	2	2	3	14	28	56	78	83	86	87	87	
	PCT.	0.02	0.02	0.02	0.14	0.30	0.66	0.98	1.08	1.11	1.16	1.17	
	DT.	1.00	1.00	1.00	1.29	1.32	1.48	1.58	1.63	1.62	1.67	1.69	
	STD.	0.00	0.00	0.00	0.59	0.71	1.02	1.02	1.00	0.99	1.01	1.01	
												60.94	AVG
800.00	NO.	2	2	3	15	31	63	83	88	91	91	91	
	PCT.	0.02	0.02	0.02	0.15	0.33	0.77	1.13	1.25	1.28	1.35	1.37	
	DT.	1.00	1.00	1.00	1.27	1.32	1.52	1.71	1.78	1.77	1.86	1.89	
	STD.	0.00	0.00	0.00	0.57	0.69	1.01	1.05	1.03	1.02	1.05	1.07	
												59.15	AVG
900.00	NO.	2	2	3	16	33	66	89	94	97	96	94	
	PCT.	0.02	0.02	0.02	0.16	0.37	0.85	1.25	1.37	1.42	1.49	1.52	
	DT.	1.00	1.00	1.00	1.25	1.39	1.62	1.75	1.83	1.84	1.95	2.02	
	STD.	0.00	0.00	0.00	0.56	0.69	1.04	1.06	1.04	1.07	1.12	1.25	
												58.63	AVG
1000.00	NO.	2	3	5	18	35	73	94	101	104	103	101	
	PCT.	0.02	0.04	0.06	0.21	0.43	1.01	1.41	1.56	1.62	1.70	1.72	
	DT.	1.50	1.67	1.40	1.44	1.54	1.73	1.88	1.94	1.95	2.07	2.14	
	STD.	0.50	0.47	0.49	0.68	0.84	1.09	1.25	1.21	1.24	1.32	1.41	
												60.85	AVG
LIMIT	NO.	302	393	494	631	782	913	924	811	654	498	421	
	PCT.	3.77	5.38	7.37	10.39	15.08	21.80	28.89	34.40	37.80	39.76	40.49	
	DT.	1.57	1.72	1.87	2.06	2.42	2.99	3.92	5.31	7.24	10.00	12.05	
	STD.	0.81	1.00	1.16	1.43	1.80	2.43	3.29	4.27	5.45	7.20	9.58	
												82.44	AVG
	AVG.	382172.93	381709.96	389112.44	370155.26	347984.46	324340.16	311110.16	312957.95	321868.28	324514.92	325394.09	

TABLE B-29

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER DELTAR — X PARAMETER ARDDOT

TAPE NO. 1

		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT	
100.00	NO.	1	1	1	[illegible]	4	6	10	11	12	12	12	
	PCT.	0.01	0.01	0.01	0.02	0.03	0.06	0.09	0.10	0.11	0.12	0.12	
	DT.	1.00	1.00	1.00	1.00	1.00	1.17	1.19	1.18	1.17	1.25	1.25	
	STD.	0.00	0.00	0.00	0.00	0.50	0.37	0.38	0.39	0.37	0.60	0.60	
												64.89	AVG
200.00	NO.	2	2	4	7	11	15	22	23	25	26	26	
	PCT.	0.02	0.02	0.03	0.06	0.09	0.13	0.19	0.23	0.26	0.29	0.29	
	DT.	1.00	1.00	1.00	1.30	1.00	1.07	1.09	1.26	1.28	1.38	1.38	
	STD.	0.00	0.00	0.00	0.00	0.00	0.25	0.29	0.67	0.66	0.88	0.88	
												63.78	AVG
300.00	NO.	3	4	6	14	20	27	39	44	47	46	48	
	PCT.	0.02	0.03	0.05	0.11	0.16	0.23	0.34	0.43	0.49	0.53	0.54	
	DT.	1.00	1.00	1.00	1.00	1.00	1.07	1.10	1.23	1.32	1.43	1.42	
	STD.	0.00	0.00	0.00	0.00	0.00	0.26	0.32	0.70	0.90	1.50	1.47	
												59.82	AVG
400.00	NO.	5	6	8	18	26	36	49	53	56	55	57	
	PCT.	0.04	0.05	0.06	0.15	0.22	0.32	0.45	0.55	0.61	0.65	0.63	
	DT.	1.00	1.00	1.00	1.06	1.00	1.11	1.16	1.30	1.38	1.47	1.46	
	STD.	0.00	0.00	0.00	0.23	0.27	0.31	0.37	0.74	0.90	1.41	1.39	
												65.60	AVG
500.00	NO.	7	8	11	20	30	41	55	58	61	61	62	
	PCT.	0.06	0.06	0.10	0.18	0.28	0.40	0.57	0.76	0.77	0.81	0.83	
	DT.	1.00	1.00	1.09	1.15	1.17	1.22	1.31	1.52	1.59	1.67	1.68	
	STD.	0.00	0.00	0.29	0.36	0.37	0.41	0.50	1.12	1.22	1.69	1.67	
												66.62	AVG
600.00	NO.	9	11	15	25	39	50	66	68	72	71	71	
	PCT.	0.07	0.09	0.13	0.22	0.35	0.47	0.69	0.84	0.93	0.97	0.98	
	DT.	1.00	1.00	1.07	1.12	1.13	1.18	1.32	1.54	1.61	1.78	1.73	
	STD.	0.00	0.00	0.25	0.32	0.33	0.38	0.61	1.24	1.34	1.72	1.74	
												69.70	AVG
700.00	NO.	9	11	16	25	39	51	78	75	77	76	75	
	PCT.	0.07	0.09	0.14	0.23	0.37	0.49	0.74	0.90	0.99	1.03	1.05	
	DT.	1.00	1.00	1.06	1.16	1.18	1.22	1.33	1.55	1.61	1.70	1.76	
	STD.	0.00	0.00	0.24	0.46	0.45	0.46	0.63	1.26	1.35	1.71	1.73	
												60.68	AVG
800.00	NO.	9	12	17	26	39	57	71	74	78	77	76	
	PCT.	0.08	0.10	0.15	0.25	0.38	0.56	0.82	1.03	1.10	1.14	1.17	
	DT.	1.11	1.08	1.12	1.19	1.23	1.23	1.45	1.69	1.77	1.86	1.92	
	STD.	0.31	0.28	0.32	0.48	0.48	0.46	0.84	1.35	1.48	1.80	1.82	
												69.33	AVG
900.00	NO.	9	12	18	27	41	60	75	78	80	79	78	
	PCT.	0.08	0.10	0.16	0.26	0.41	0.59	0.89	1.08	1.19	1.24	1.26	
	DT.	1.11	1.08	1.11	1.22	1.24	1.23	1.48	1.73	1.86	1.96	2.03	
	STD.	0.31	0.28	0.31	0.50	0.53	0.50	0.88	1.41	1.59	1.93	1.94	
												68.07	AVG
1000.00	NO.	9	13	19	29	44	63	77	80	82	81	83	
	PCT.	0.08	0.11	0.18	0.29	0.45	0.65	0.94	1.13	1.23	1.31	1.33	
	DT.	1.11	1.08	1.16	1.26	1.27	1.29	1.53	1.77	1.93	2.02	2.09	
	STD.	0.31	0.27	0.36	0.62	0.65	0.60	0.93	1.43	1.65	1.99	2.00	
												68.99	AVG
LIMIT	NO.	213	290	402	500	563	600	593	552	456	399	349	
	PCT.	2.28	3.33	5.28	7.83	10.43	13.53	16.81	19.44	21.52	22.40	22.76	
	DT.	1.34	1.44	1.64	1.96	2.32	2.83	3.55	4.41	5.91	7.22	8.17	
	STD.	0.80	0.98	1.16	1.48	1.85	2.26	2.81	3.45	4.88	6.02	7.55	
												35.87	AVG
AVG.		271250.89	284186.92	288552.21	301572.32	295954.40	291753.22	287925.91	277662.25	276326.95	278108.86	277558.70	

TABLE B-30

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA = 60,00

Y PARAMETER DELTAR — X PARAMETER ARDDBT

TAPE NO. 1

		200,00	162,00	128,00	98,00	72,00	50,00	32,00	18,00	8,00	2,00	LIMIT
100,00	NO.	3	3	6	10	14	26	36	42	45	48	48
	PCT.	0,02	0,02	0,05	0,08	0,11	0,23	0,32	0,36	0,40	0,43	0.43
	DT.	1,00	1,00	1,00	1,00	1,00	1,12	1,11	1,12	1,11	1,13	1.13
	STD.	0,00	0,00	0,00	0,00	0,00	0,32	0,31	0,32	0,31	0,39	0.39
												66.47 AVG
200,00	NO.	4	5	12	20	30	54	78	87	93	97	97
	PCT.	0,03	0,04	0,10	0,16	0,24	0,47	0,68	0,78	0,85	0,93	0.93
	DT.	1,00	1,00	1,00	1,00	1,00	1,09	1,09	1,13	1,15	1,20	1.20
	STD.	0,00	0,00	0,00	0,00	0,00	0,35	0,33	0,45	0,49	0,62	0.62
												63.21 AVG
300,00	NO.	8	11	19	37	53	85	118	133	141	142	144
	PCT.	0,07	0,10	0,16	0,30	0,46	0,79	1,12	1,29	1,42	1,49	1.51
	DT.	1,13	1,09	1,05	1,03	1,09	1,16	1,19	1,22	1,26	1,32	1.31
	STD.	0,33	0,29	0,22	0,16	0,35	0,48	0,60	0,68	0,79	1,21	1.20
												70.31 AVG
400,00	NO.	13	19	29	49	71	111	149	163	173	174	176
	PCT.	0,11	0,17	0,25	0,45	0,67	1,08	1,49	1,71	1,86	1,94	1.96
	DT.	1,08	1,11	1,07	1,14	1,18	1,22	1,26	1,31	1,35	1,40	1.40
	STD.	0,27	0,31	0,25	0,40	0,48	0,54	0,65	0,74	0,92	1,18	1.18
												74.35 AVG
500,00	NO.	15	22	35	60	86	131	174	187	197	197	198
	PCT.	0,13	0,19	0,32	0,59	0,89	1,40	1,95	2,23	2,42	2,51	2.54
	DT.	1,07	1,09	1,14	1,23	1,29	1,34	1,40	1,49	1,54	1,60	1.61
	STD.	0,25	0,29	0,35	0,46	0,63	0,70	0,79	1,03	1,07	1,44	1.44
												73.12 AVG
600,00	NO.	18	28	42	67	97	147	197	208	221	220	219
	PCT.	0,15	0,24	0,38	0,69	1,07	1,66	2,35	2,70	2,9[illegible]	3,03	3.06
	DT.	1,06	1,07	1,14	1,30	1,38	1,41	1,50	1,63	1,67	1,73	1.75
	STD.	0,23	0,26	0,35	0,60	0,74	0,76	0,88	1,13	1,17	1,48	1.52
												73.43 AVG
700,00	NO.	18	28	43	68	101	151	205	218	228	226	224
	PCT.	0,15	0,24	0,39	0,73	1,16	1,86	2,66	3,06	3,34	3,46	3.51
	DT.	1,06	1,07	1,14	1,34	1,44	1,54	1,62	1,76	1,83	1,92	1.96
	STD.	0,23	0,26	0,35	0,68	0,80	1,05	1,12	1,38	1,40	1,67	1.70
												70.47 AVG
800,00	NO.	18	30	46	72	106	165	213	226	234	231	229
	PCT.	0,17	0,28	0,44	0,79	1,27	2,11	3,02	3,47	3,77	3,94	4.00
	DT.	1,17	1,17	1,20	1,38	1,50	1,61	1,77	1,92	2,02	2,14	2.19
	STD.	0,37	0,37	0,45	0,70	0,96	1,21	1,3[illegible]	1,56	1,63	1,89	1.92
												69.62 AVG
900,00	NO.	21	33	50	78	114	175	228	239	243	237	233
	PCT.	0,20	0,33	0,49	0,89	1,46	2,40	3,39	3,89	4,23	4,42	4.48
	DT.	1,19	1,24	1,24	1,42	1,61	1,72	1,86	2,04	2,18	2,34	2.41
	STD.	0,39	0,55	0,59	0,79	1,09	1,26	1,40	1,61	1,72	2,06	2.12
												71.52 AVG
1000,00	NO.	22	36	54	82	119	183	233	246	248	242	238
	PCT.	0,22	0,37	0,57	1,01	1,64	2,69	3,72	4,25	4,64	4,86	4.92
	DT.	1,23	1,28	1,33	1,54	1,72	1,84	2,00	2,16	2,35	2,52	2.59
	STD.	0,42	0,56	0,67	0,99	1,19	1,43	1,58	1,79	1,94	2,28	2.33
												71.87 AVG
LIMIT	NO.	843	1020	1223	1430	1574	1658	1490	1191	593	193	11
	PCT.	14,01	18,74	25,24	33,97	44,92	59,31	74,13	86,05	94,10	98,41	99.92
	DT.	2,08	2,30	2,59	2,98	3,58	4,48	6,23	9,[illegible]9	19,88	63,89	1138.18
	STD.	1,35	1,67	2,[illegible]1	2,40	3,00	4,12	6,18	9,94	22,55	71,25	798.41
												119.44 AVG
	AVG.	361682,63	362515,13	361580,93	354906,45	340049,19	320696,01	309435,42	302233,71	302388,64	302471,22	302288,86

TABLE B-31

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER DELTAP

X PARAMETER A WIDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
100.00	NO.	0	0	0	1	1	2	2	4	6	10	12
	PCT.	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.04	0.06	0.09	0.10
	DT.	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.25	1.17	1.10	1.40
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.37	0.30	0.28
												1.15 AVG
200.00	NO.	0	1	1	2	4	5	5	12	23	27	30
	PCT.	0.00	0.01	0.01	0.02	0.03	0.04	0.04	0.10	0.19	0.23	0.26
	DT.	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.04	1.07	1.07
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.20	0.26	0.25
												1.30 AVG
300.00	NO.	0	1	1	3	5	6	7	19	34	44	48
	PCT.	0.00	0.01	0.01	0.02	0.04	0.05	0.06	0.16	0.28	0.38	0.42
	DT.	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.03	1.09	1.08
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.17	0.36	0.34
												1.28 AVG
400.00	NO.	2	3	3	7	10	12	16	31	51	60	66
	PCT.	0.02	0.02	0.02	0.06	0.09	0.10	0.14	0.29	0.45	0.56	0.60
	DT.	1.00	1.00	1.00	1.08	1.10	1.08	1.13	1.16	1.10	1.17	1.15
	STD.	0.00	0.00	0.00	0.00	0.30	0.28	0.48	0.45	0.36	0.52	0.50
												1.66 AVG
500.00	NO.	2	3	3	7	10	13	21	36	59	72	78
	PCT.	0.02	0.02	0.02	0.06	0.10	0.13	0.20	0.35	0.56	0.75	0.82
	DT.	1.00	1.00	1.00	1.14	1.20	1.23	1.19	1.22	1.19	1.31	1.32
	STD.	0.00	0.00	0.00	0.35	0.40	0.42	0.50	0.46	0.43	0.57	0.63
												1.49 AVG
600.00	NO.	2	3	3	7	10	16	24	38	61	74	84
	PCT.	0.02	0.02	0.02	0.06	0.10	0.15	0.24	0.42	0.64	0.87	0.96
	DT.	1.00	1.00	1.00	1.14	1.20	1.19	1.25	1.37	1.31	1.47	1.46
	STD.	0.00	0.00	0.00	0.35	0.40	0.39	0.52	0.53	0.53	0.64	0.70
												1.40 AVG
700.00	NO.	2	3	3	8	12	18	28	42	66	77	87
	PCT.	0.02	0.02	0.02	0.07	0.11	0.18	0.29	0.49	0.76	1.06	1.17
	DT.	1.00	1.00	1.00	1.13	1.17	1.22	1.29	1.48	1.44	1.73	1.69
	STD.	0.00	0.00	0.00	0.33	0.37	0.53	0.70	0.70	0.70	1.00	1.01
												1.36 AVG
800.00	NO.	2	3	3	8	13	20	31	47	73	83	91
	PCT.	0.02	0.02	0.02	0.07	0.12	0.19	0.32	0.57	0.89	1.25	1.37
	DT.	1.00	1.00	1.00	1.13	1.15	1.20	1.29	1.51	1.53	1.80	1.89
	STD.	0.00	0.00	0.00	0.33	0.36	0.51	0.73	0.74	0.76	1.07	1.07
												1.31 AVG
900.00	NO.	2	4	4	10	14	22	33	51	77	88	94
	PCT.	0.02	0.03	0.03	0.10	0.14	0.23	0.36	0.65	1.01	1.39	1.52
	DT.	1.00	1.00	1.00	1.20	1.29	1.32	1.36	1.59	1.64	1.98	2.02
	STD.	0.00	0.00	0.00	0.40	0.45	0.55	0.85	0.87	1.06	1.26	1.25
												1.38 AVG
1000.00	NO.	2	4	4	10	16	26	38	53	81	93	101
	PCT.	0.02	0.03	0.03	0.10	0.16	0.26	0.42	0.74	1.13	1.55	1.72
	DT.	1.00	1.00	1.00	1.20	1.25	1.27	1.39	1.75	1.74	2.09	2.14
	STD.	0.00	0.00	0.00	0.40	0.43	0.52	0.87	0.95	1.09	1.42	1.41
												1.35 AVG
LIMIT	NO.	204	251	296	356	439	524	631	764	870	733	421
	PCT.	1.81	2.29	3.00	4.01	5.62	7.64	10.81	15.35	24.21	34.35	46.49
	DT.	1.11	1.20	1.27	1.41	1.60	1.83	2.15	2.62	3.49	5.88	12.05
	STD.	0.33	0.42	0.52	0.66	0.86	1.14	1.65	2.18	2.93	5.05	9.58
												2.31 AVG
	AVG.	324599.95	326823.86	335197.02	335126.10	324697.72	321476.25	324613.61	316026.61	313682.56	307961.74	325394.09

TABLE B–32

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER DELTAR X PARAMETER A WKDF

TAPE NO. 1

		10.00	8.10	6.40	4.00	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT	
100.00	NO.	0	0	0	1	3	5	5	7	9	11	12	
	PCT.	0.00	0.00	0.00	0.01	0.02	0.04	0.04	0.06	0.07	0.10	0.12	
	DT.	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.25	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.60	
												1.70	AVG
200.00	NO.	1	1	2	3	5	7	9	17	21	24	26	
	PCT.	0.01	0.01	0.02	0.02	0.04	0.06	0.07	0.14	0.18	0.26	0.29	
	DT.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.10	1.33	1.38	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.29	0.85	0.86	
												2.15	AVG
300.00	NO.	1	1	2	6	9	13	18	31	42	44	48	
	PCT.	0.01	0.02	0.02	0.06	0.08	0.11	0.15	0.27	0.38	0.49	0.54	
	DT.	1.00	2.00	1.50	1.17	1.11	1.08	1.06	1.10	1.12	1.39	1.42	
	STD.	0.00	0.00	0.50	0.37	0.31	0.27	0.23	0.30	0.39	1.48	1.47	
												1.96	AVG
400.00	NO.	1	1	2	7	10	15	20	34	46	52	57	
	PCT.	0.01	0.02	0.02	0.06	0.10	0.14	0.18	0.31	0.45	0.60	0.66	
	DT.	1.00	2.00	1.50	1.14	1.20	1.20	1.15	1.15	1.24	1.44	1.46	
	STD.	0.00	0.00	0.50	0.35	0.40	0.40	0.36	0.43	0.56	1.41	1.39	
												1.86	AVG
500.00	NO.	1	1	2	8	11	16	23	38	54	59	62	
	PCT.	0.01	0.02	0.02	0.07	0.11	0.16	0.22	0.37	0.57	0.75	0.83	
	DT.	1.00	2.00	1.50	1.13	1.27	1.25	1.22	1.21	1.33	1.59	1.60	
	STD.	0.00	0.00	0.50	0.33	0.45	0.56	0.51	0.52	1.32	1.65	1.67	
												1.72	AVG
600.00	NO.	2	3	5	12	16	22	30	47	63	67	71	
	PCT.	0.02	0.03	0.05	0.10	0.16	0.22	0.30	0.46	0.68	0.87	0.98	
	DT.	1.00	1.33	1.20	1.08	1.25	1.27	1.27	1.23	1.35	1.63	1.73	
	STD.	0.00	0.47	0.40	0.28	0.56	0.62	0.57	0.55	0.98	1.66	1.74	
												1.98	AVG
700.00	NO.	2	3	5	13	17	24	33	51	66	70	75	
	PCT.	0.02	0.03	0.05	0.11	0.17	0.24	0.33	0.50	0.73	0.93	1.05	
	DT.	1.00	1.33	1.20	1.08	1.24	1.25	1.24	1.24	1.39	1.67	1.76	
	STD.	0.00	0.47	0.40	0.27	0.55	0.60	0.55	0.55	0.98	1.66	1.73	
												1.96	AVG
800.00	NO.	2	4	6	14	19	27	37	55	69	72	76	
	PCT.	0.02	0.04	0.06	0.12	0.18	0.27	0.37	0.57	0.82	1.04	1.17	
	DT.	1.00	1.25	1.17	1.07	1.21	1.26	1.24	1.29	1.49	1.81	1.92	
	STD.	0.00	0.43	0.37	0.26	0.52	0.58	0.54	0.56	1.00	1.70	1.82	
												1.97	AVG
900.00	NO.	2	4	7	16	21	28	39	56	71	75	78	
	PCT.	0.02	0.04	0.06	0.14	0.20	0.29	0.40	0.61	0.89	1.12	1.26	
	DT.	1.00	1.25	1.14	1.06	1.19	1.29	1.28	1.38	1.56	1.87	2.03	
	STD.	0.00	0.43	0.35	0.24	0.50	0.59	0.55	0.67	1.03	1.81	1.94	
												1.95	AVG
1000.00	NO.	2	4	7	17	23	31	43	59	73	76	80	
	PCT.	0.02	0.04	0.06	0.14	0.22	0.31	0.43	0.65	0.94	1.18	1.33	
	DT.	1.00	1.25	1.14	1.06	1.17	1.26	1.26	1.39	1.62	1.95	2.09	
	STD.	0.00	0.43	0.35	0.24	0.48	0.57	0.53	0.66	1.86	1.86	2.00	
												1.94	AVG
LIMIT	NO.	138	166	217	291	349	419	469	537	563	483	349	
	PCT.	1.23	1.54	2.08	2.95	3.98	5.47	7.45	10.62	14.94	19.80	22.76	
	DT.	1.12	1.16	1.20	1.27	1.43	1.61	1.99	2.48	3.33	5.14	8.17	
	STD.	0.34	0.39	0.42	0.49	0.62	0.80	1.21	1.72	2.44	3.98	7.55	
												3.12	AVG
	AVG.	427116.62	402182.50	371860.25	342982.59	338067.28	310817.67	299417.92	286069.56	277360.56	275311.07	277558.70	

TABLE B-33

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER DELTAR — X PARAMETER A WKDF — TAPE NO. 1

Y		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
100.00	NO.	0	0	0	2	5	9	13	23	32	42	48
	PCT.	0.00	0.00	0.00	0.02	0.04	0.07	0.10	0.19	0.26	0.36	0.43
	DT.	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.04	1.03	1.07	1.13
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.17	0.26	0.39
												1.28 AVG
200.00	NO.	1	2	4	6	12	19	28	50	75	89	97
	PCT.	0.01	0.02	0.03	0.05	0.10	0.15	0.22	0.43	0.65	0.84	0.93
	DT.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.08	1.18	1.28
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.32	0.61	0.62
												1.60 AVG
300.00	NO.	3	4	6	12	19	30	43	76	114	132	144
	PCT.	0.02	0.04	0.06	0.11	0.17	0.26	0.37	0.67	1.04	1.36	1.51
	DT.	1.00	1.25	1.33	1.17	1.11	1.10	1.07	1.11	1.14	1.30	1.31
	STD.	0.00	0.43	0.75	0.55	0.45	0.40	0.33	0.38	0.48	1.20	1.20
												1.63 AVG
400.00	NO.	5	6	9	19	27	41	57	94	141	163	176
	PCT.	0.05	0.06	0.10	0.18	0.26	0.38	0.54	0.90	1.39	1.80	1.96
	DT.	1.20	1.33	1.33	1.16	1.19	1.17	1.19	1.20	1.23	1.38	1.40
	STD.	0.40	0.47	0.67	0.49	0.47	0.44	0.48	0.50	0.56	1.17	1.18
												1.83 AVG
500.00	NO.	5	7	11	22	30	45	69	110	163	187	198
	PCT.	0.05	0.07	0.11	0.21	0.30	0.45	0.68	1.09	1.74	2.28	2.54
	DT.	1.20	1.29	1.27	1.18	1.23	1.24	1.23	1.25	1.34	1.53	1.61
	STD.	0.40	0.45	0.62	0.49	0.50	0.52	0.51	0.53	0.87	1.38	1.44
												1.68 AVG
600.00	NO.	7	10	14	28	37	56	84	126	181	205	219
	PCT.	0.06	0.10	0.14	0.26	0.37	0.59	0.89	1.36	2.07	2.73	3.06
	DT.	1.14	1.20	1.29	1.18	1.24	1.32	1.33	1.35	1.43	1.66	1.75
	STD.	0.35	0.40	0.59	0.47	0.59	0.68	0.64	0.63	0.92	1.42	1.52
												1.76 AVG
700.00	NO.	7	10	14	30	42	63	92	137	193	214	224
	PCT.	0.06	0.10	0.14	0.28	0.41	0.65	1.00	1.56	2.37	3.14	3.51
	DT.	1.14	1.20	1.29	1.17	1.21	1.30	1.36	1.42	1.54	1.84	1.96
	STD.	0.35	0.40	0.59	0.45	0.56	0.68	0.70	0.71	1.01	1.54	1.70
												1.70 AVG
800.00	NO.	7	11	15	31	47	70	103	152	208	224	229
	PCT.	0.06	0.10	0.15	0.29	0.45	0.72	1.12	1.76	2.71	3.58	4.08
	DT.	1.14	1.18	1.27	1.16	1.19	1.29	1.36	1.45	1.63	2.00	2.19
	STD.	0.35	0.39	0.57	0.45	0.53	0.66	0.74	0.74	1.04	1.65	1.92
												1.64 AVG
900.00	NO.	8	14	20	38	55	76	110	161	217	233	233
	PCT.	0.08	0.14	0.20	0.37	0.54	0.85	1.26	2.00	3.06	4.01	4.48
	DT.	1.25	1.21	1.25	1.21	1.24	1.39	1.44	1.56	1.77	2.15	2.41
	STD.	0.66	0.56	0.62	0.42	0.57	0.71	0.80	0.84	1.20	1.84	2.12
												1.75 AVG
1000.00	NO.	8	14	21	40	59	86	121	166	222	237	238
	PCT.	0.08	0.14	0.21	0.38	0.59	0.94	1.40	2.20	3.34	4.37	4.92
	DT.	1.25	1.21	1.24	1.20	1.25	1.37	1.45	1.66	1.89	2.31	2.59
	STD.	0.66	0.56	0.61	0.51	0.57	0.68	0.82	0.90	1.30	1.99	2.33
												1.71 AVG
LIMIT	NO.	472	541	637	798	963	1157	1352	1520	1458	795	11
	PCT.	7.53	9.01	11.03	14.21	18.70	24.53	33.15	46.41	65.83	87.93	99.92
	DT.	2.00	2.09	2.17	2.23	2.43	2.66	3.07	3.83	5.66	13.86	1138.18
	STD.	1.09	1.22	1.33	1.50	1.75	2.01	2.59	3.65	5.85	16.51	798.41
												4.85 AVG
	AVG.	424578.81	415075.90	402475.79	387834.31	376537.15	355493.06	340421.07	319932.60	308431.45	297701.02	302288.66

TABLE B-34

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER DELTAF — X PARAMETER A WJDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT	
100.00	NE.	0	0	0	0	0	1	2	5	6	11	17	
	PCT.	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.05	0.06	0.10	0.10	
	LT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.20	1.17	1.09	1.08	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.37	0.29	0.28	
												0.94	AVG
200.00	NE.	1	1	1	1	2	4	5	9	15	26	30	
	PCT.	0.01	0.01	0.01	0.01	0.02	0.03	0.04	0.08	0.13	0.22	0.26	
	LT.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.07	1.08	1.07	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.25	0.27	0.25	
												1.20	AVG
300.00	NE.	1	2	3	4	6	8	10	18	27	43	43	
	PCT.	0.01	0.02	0.02	0.03	0.05	0.06	0.08	0.15	0.22	0.37	0.42	
	LT.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.04	1.67	1.08	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.19	0.33	0.34	
												1.43	AVG
400.00	NE.	1	3	5	6	9	11	14	25	39	57	65	
	PCT.	0.01	0.02	0.04	0.05	0.08	0.10	0.14	0.24	0.37	0.53	0.60	
	LT.	1.00	1.00	1.00	1.00	1.11	1.18	1.21	1.20	1.18	1.16	1.15	
	STD.	0.00	0.00	0.00	0.00	0.31	0.57	0.56	0.49	0.45	0.52	0.50	
												1.53	AVG
500.00	NE.	1	4	6	8	11	13	16	29	48	67	78	
	PCT.	0.01	0.03	0.05	0.06	0.10	0.12	0.15	0.27	0.46	0.70	0.82	
	LT.	1.00	1.00	1.00	1.00	1.09	1.15	1.19	1.17	1.21	1.31	1.32	
	STD.	0.00	0.00	0.00	0.00	0.29	0.53	0.53	0.46	0.45	0.58	0.63	
												1.36	AVG
600.00	NE.	1	4	6	6	11	14	18	35	56	74	84	
	PCT.	0.01	0.03	0.06	0.07	0.10	0.14	0.16	0.34	0.56	0.84	0.98	
	LT.	1.00	1.00	1.17	1.13	1.18	1.21	1.28	1.20	1.25	1.42	1.46	
	STD.	0.00	0.00	0.37	0.33	0.39	0.56	0.56	0.47	0.51	0.66	0.76	
												1.32	AVG
700.00	NE.	2	4	6	9	13	15	22	40	59	77	87	
	PCT.	0.02	0.04	0.06	0.09	0.13	0.16	0.24	0.42	0.69	1.01	1.17	
	LT.	1.00	1.25	1.33	1.22	1.23	1.33	1.36	1.32	1.47	1.64	1.69	
	STD.	0.00	0.43	0.47	0.42	0.58	0.79	0.71	0.69	0.81	1.03	1.01	
												1.40	AVG
800.00	NE.	2	4	6	10	14	19	26	44	65	85	91	
	PCT.	0.02	0.04	0.06	0.10	0.14	0.20	0.28	0.49	0.81	1.18	1.37	
	LT.	1.00	1.25	1.33	1.30	1.29	1.32	1.33	1.39	1.55	1.74	1.89	
	STD.	0.00	0.43	0.47	0.46	0.59	0.73	0.68	0.78	0.88	1.05	1.07	
												1.38	AVG
900.00	NE.	2	4	7	13	17	22	28	45	66	89	94	
	PCT.	0.02	0.04	0.07	0.13	0.19	0.26	0.34	0.57	0.89	1.31	1.52	
	LT.	1.00	1.25	1.29	1.23	1.26	1.45	1.50	1.58	1.70	1.84	2.02	
	STD.	0.00	0.43	0.45	0.42	0.55	0.89	0.87	0.95	1.04	1.16	1.25	
												1.46	AVG
1000.00	NE.	3	5	8	14	20	22	32	49	69	91	101	
	PCT.	0.02	0.05	0.08	0.14	0.20	0.26	0.38	0.64	0.99	1.47	1.72	
	LT.	1.00	1.20	1.25	1.21	1.25	1.50	1.50	1.63	1.80	2.02	2.14	
	STD.	0.00	0.40	0.43	0.41	0.54	0.89	0.83	0.94	1.25	1.36	1.41	
												1.48	AVG
LIMIT	NE.	223	271	331	379	429	503	589	699	783	715	421	
	PCT.	2.23	2.88	3.88	4.99	6.37	8.49	11.60	16.63	24.61	34.38	40.49	
	LT.	1.25	1.33	1.47	1.65	1.86	2.12	2.47	2.98	3.04	6.03	12.05	
	STD.	0.51	0.58	0.71	0.87	1.14	1.48	1.83	2.29	3.32	4.80	9.58	
												2.50	AVG
AVG.		366742.67	366339.62	368521.42	352742.62	347417.92	339463.88	341087.89	337507.14	333523.40	313772.15	325394.09	

TABLE B-35

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA = 60,00

Y PARAMETER DELTAR — X PARAMETER A WJDF

TAPE NO. 1

Y		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT	
100,00	NE,	0	1	1	3	3	4	5	8	8	10	12	
	PCT,	0,00	0,01	0,01	0,02	0,02	0,03	0,04	0,06	0,06	0,08	0,12	
	DT,	0,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,25	
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,60	
												2,04	AVG
200,00	NE,	0	1	3	5	5	8	11	18	20	25	26	
	PCT,	0,00	0,01	0,02	0,04	0,04	0,06	0,09	0,15	0,18	0,24	0,29	
	DT,	0,00	1,00	1,00	1,00	1,00	1,00	1,00	1,06	1,15	1,20	1,38	
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,23	0,48	0,63	0,88	
												1,79	AVG
300,00	NE,	0	3	5	6	10	14	22	34	38	49	48	
	PCT,	0,00	0,02	0,04	0,06	0,09	0,12	0,18	0,29	0,34	0,47	0,54	
	DT,	0,00	1,00	1,00	1,00	1,10	1,07	1,05	1,06	1,13	1,20	1,42	
	STD,	0,00	0,00	0,00	0,00	0,30	0,26	0,21	0,24	0,52	0,70	1,47	
												1,81	AVG
400,00	NE,	0	3	5	9	12	17	25	39	45	58	57	
	PCT,	0,00	0,03	0,05	0,09	0,12	0,16	0,23	0,35	0,43	0,58	0,66	
	DT,	0,00	1,33	1,20	1,22	1,25	1,18	1,16	1,13	1,20	1,26	1,46	
	STD,	0,00	0,47	0,40	0,42	0,43	0,38	0,37	0,33	0,58	0,73	1,35	
												1,89	AVG
500,00	NE,	1	5	7	12	16	21	29	44	52	64	62	
	PCT,	0,01	0,05	0,06	0,11	0,15	0,19	0,26	0,40	0,53	0,71	0,83	
	DT,	1,00	1,20	1,14	1,17	1,19	1,14	1,14	1,14	1,27	1,39	1,68	
	STD,	0,00	0,40	0,35	0,37	0,39	0,35	0,34	0,34	0,59	0,78	1,67	
												1,86	AVG
600,00	NE,	1	6	8	13	18	23	33	50	59	72	71	
	PCT,	0,01	0,06	0,07	0,12	0,17	0,23	0,33	0,49	0,63	0,84	0,98	
	DT,	1,00	1,17	1,13	1,15	1,17	1,26	1,24	1,22	1,34	1,46	1,73	
	STD,	0,00	0,37	0,33	0,36	0,37	0,53	0,49	0,54	0,73	0,96	1,74	
												1,86	AVG
700,00	NE,	2	7	9	14	21	26	36	53	62	76	75	
	PCT,	0,02	0,06	0,08	0,13	0,19	0,26	0,36	0,52	0,69	0,91	1,05	
	DT,	1,00	1,14	1,11	1,14	1,14	1,23	1,25	1,23	1,39	1,50	1,76	
	STD,	0,00	0,35	0,31	0,35	0,35	0,50	0,49	0,54	0,73	0,98	1,73	
												1,92	AVG
800,00	NE,	2	7	11	17	25	30	37	54	66	80	76	
	PCT,	0,02	0,06	0,10	0,15	0,22	0,29	0,40	0,57	0,77	1,01	1,17	
	DT,	1,00	1,14	1,09	1,12	1,12	1,20	1,35	1,33	1,47	1,57	1,92	
	STD,	0,00	0,35	0,29	0,32	0,32	0,46	0,62	0,67	0,80	1,03	1,82	
												1,94	AVG
900,00	NE,	2	7	11	16	27	33	39	55	70	83	78	
	PCT,	0,02	0,06	0,10	0,16	0,24	0,32	0,43	0,61	0,83	1,09	1,26	
	DT,	1,00	1,14	1,09	1,11	1,11	1,21	1,38	1,36	1,49	1,64	2,03	
	STD,	0,00	0,35	0,29	0,31	0,31	0,48	0,66	0,70	0,86	1,13	1,94	
												1,91	AVG
1000,00	NE,	3	8	14	21	31	36	43	59	74	85	80	
	PCT,	0,02	0,07	0,12	0,16	0,27	0,35	0,47	0,66	0,89	1,15	1,33	
	DT,	1,00	1,13	1,07	1,10	1,10	1,22	1,37	1,41	1,51	1,69	2,09	
	STD,	0,00	0,33	0,26	0,29	0,30	0,48	0,65	0,74	0,89	1,19	2,00	
												2,02	AVG
LIMIT	NE,	172	216	241	316	378	427	466	542	553	488	349	
	PCT,	1,60	2,12	2,72	3,51	4,55	5,67	7,75	10,57	14,67	20,06	22,76	
	DT,	1,17	1,23	1,31	1,39	1,51	1,72	2,08	2,44	3,32	5,15	8,17	
	STD,	0,37	0,42	0,50	0,57	0,69	0,88	1,22	1,56	2,42	4,12	7,55	
												3,24	AVG
AVG,		365405,17	343715,60	324211,65	324379,6[illegible]	296235,07	286979,52	289359,49	287002,77	294181,43	289583,15	277558,70	

TABLE B-36

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA = 60,00

PARAMETER DELTAR — X PARAMETER A WJDF

TAPE NO. 1

		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT
100,00	NE,	0	1	1	4	4	7	11	22	27	44	48
	PCT,	0,00	0,01	0,01	0,03	0,03	0,06	0,09	0,16	0,22	0,37	0,43
	LT,	0,00	1,00	1,00	1,00	1,00	1,00	1,00	1,05	1,04	1,05	1,13
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,21	0,19	0,21	0,39
												1,22 AVG
200,00	NE,	2	3	5	6	9	15	25	48	61	90	97
	PCT,	0,02	0,02	0,04	0,06	0,07	0,12	0,21	0,41	0,53	0,82	0,93
	LT,	1,00	1,00	1,00	1,00	1,00	1,00	1,04	1,06	1,08	1,14	1,20
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,20	0,24	0,33	0,46	0,62
												1,38 AVG
300,00	NE,	4	8	10	16	20	27	45	78	96	138	144
	PCT,	0,03	0,06	0,09	0,14	0,18	0,23	0,38	0,69	0,92	1,36	1,51
	LT,	1,00	1,00	1,10	1,06	1,10	1,07	1,07	1,12	1,17	1,23	1,31
	STD,	0,00	0,00	0,30	0,24	0,44	0,36	0,33	0,45	0,54	0,68	1,20
												1,63 AVG
400,00	NE,	5	10	13	20	27	36	55	93	124	169	176
	PCT,	0,04	0,09	0,12	0,19	0,26	0,34	0,53	0,90	1,25	1,78	1,96
	LT,	1,00	1,10	1,15	1,20	1,22	1,19	1,20	1,22	1,27	1,32	1,40
	STD,	0,00	0,30	0,36	0,40	0,50	0,52	0,52	0,58	0,62	0,75	1,18
												1,68 AVG
500,00	NE,	8	15	18	27	35	47	66	111	149	190	198
	PCT,	0,06	0,13	0,16	0,25	0,33	0,43	0,61	1,09	1,58	2,25	2,54
	LT,	1,00	1,07	1,11	1,15	1,17	1,15	1,17	1,23	1,33	1,48	1,61
	STD,	0,00	0,25	0,31	0,36	0,45	0,46	0,48	0,63	0,67	0,84	1,44
												1,64 AVG
600,00	NE,	8	17	20	30	40	56	79	128	168	211	219
	PCT,	0,06	0,14	0,18	0,30	0,39	0,56	0,80	1,34	1,89	2,70	3,08
	LT,	1,00	1,06	1,15	1,23	1,23	1,25	1,27	1,31	1,41	1,60	1,75
	STD,	0,00	0,24	0,36	0,42	0,47	0,57	0,57	0,73	0,77	0,99	1,52
												1,64 AVG
700,00	NE,	10	16	22	34	46	62	88	137	175	221	224
	PCT,	0,06	0,16	0,21	0,34	0,45	0,65	0,94	1,53	2,20	3,11	3,51
	LT,	1,00	1,11	1,18	1,24	1,24	1,32	1,34	1,40	1,58	1,76	1,96
	STD,	0,00	0,31	0,39	0,42	0,52	0,64	0,64	0,82	1,00	1,22	1,70
												1,67 AVG
800,00	NE,	11	19	25	39	53	73	96	147	188	234	229
	PCT,	0,09	0,17	0,23	0,36	0,52	0,75	1,05	1,71	2,48	3,53	4,00
	LT,	1,00	1,11	1,16	1,23	1,23	1,29	1,36	1,46	1,65	1,89	2,19
	STD,	0,00	0,31	0,37	0,42	0,50	0,61	0,66	0,86	1,07	1,30	1,92
												1,64 AVG
900,00	NE,	14	22	29	47	64	84	106	155	197	243	233
	PCT,	0,11	0,20	0,27	0,45	0,63	0,90	1,21	1,95	2,79	3,94	4,48
	LT,	1,00	1,14	1,17	1,21	1,23	1,35	1,43	1,57	1,77	2,03	2,41
	STD,	0,00	0,34	0,38	0,46	0,52	0,68	0,74	0,96	1,19	1,45	2,12
												1,83 AVG
1000,00	NE,	15	24	33	52	71	88	115	167	205	246	238
	PCT,	0,13	0,22	0,31	0,50	0,69	0,98	1,35	2,16	3,06	4,31	4,92
	LT,	1,07	1,17	1,18	1,21	1,23	1,40	1,47	1,62	1,87	2,20	2,59
	STD,	0,25	0,37	0,39	0,45	0,51	0,72	0,75	0,99	1,29	1,63	2,33
												1,85 AVG
LIMIT	NE,	507	600	720	656	1044	1222	1365	1463	1332	833	11
	PCT,	8,36	10,15	12,63	15,83	20,34	26,52	35,09	47,58	65,80	87,69	99,92
	LT,	2,07	2,12	2,20	2,32	2,44	2,72	3,22	4,08	6,19	13,19	1138,18
	STD,	1,06	1,19	1,33	1,52	1,73	2,13	2,72	3,77	6,60	14,70	798,41
												4,16 AVG
	AVG,	420912,39	405660,13	391933,97	376730,81	362540,17	348635,29	338278,74	325671,24	319212,81	305289,16	302288,66

d. Pulse Altitude Line (R-H)

i. Range acceleration (ARDDOT)

(a) Nose sector (AI radar coverage) - Table B-37

(b) Tail sector - Table B-38

(c) Full sphere - Table B-39

ii. Azimuth line of sight acceleration (AWKDF)

(a) Nose sector (AI radar coverage) - Table B-40

(b) Tail sector - Table B-41

(c) Full sphere - Table B-42

iii. Elevation line of sight acceleration (AWJDF)

(a) Nose sector (AI radar coverage) - Table B-43

(b) Tail sector - Table B-44

(c) Full sphere - Table B-45

TABLE B–37

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER AB R=H X PARAMETER ARDDOT

TAPE NO. 1

Y PARAMETER		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT
200.00	NO.	4	6	8	13	20	30	39	47	52	54	55
	PCT.	0.04	0.06	0.08	0.14	0.21	0.31	0.41	0.51	0.55	0.57	0.59
	DT.	1.25	1.17	1.25	1.38	1.30	1.30	1.31	1.36	1.33	1.31	1.35
	STD.	0.43	0.37	0.43	0.84	0.71	0.64	0.65	0.81	0.78	0.77	0.79
												73.15 AVG
400.00	NO.	6	9	15	25	38	52	68	73	78	81	81
	PCT.	0.06	0.08	0.14	0.26	0.41	0.65	0.91	1.10	1.19	1.22	1.26
	DT.	1.17	1.11	1.13	1.32	1.34	1.58	1.68	1.89	1.91	1.89	1.95
	STD.	0.37	0.31	0.34	0.88	0.87	1.10	1.17	1.51	1.47	1.45	1.59
												68.07 AVG
600.00	NO.	10	13	21	33	50	68	86	88	87	88	88
	PCT.	0.10	0.14	0.23	0.42	0.65	1.06	1.40	1.65	1.79	1.84	1.88
	DT.	1.30	1.38	1.38	1.61	1.62	1.96	2.03	2.39	2.57	2.61	2.68
	STD.	0.46	0.49	0.49	0.89	0.98	1.27	1.30	1.77	2.08	2.17	2.27
												71.69 AVG
800.00	NO.	11	15	22	34	59	82	100	97	94	96	92
	PCT.	0.12	0.17	0.28	0.50	0.82	1.36	1.79	2.13	2.31	2.38	2.43
	DT.	1.36	1.40	1.59	1.85	1.75	2.07	2.24	2.75	3.07	3.10	3.32
	STD.	0.48	0.61	0.65	0.94	1.00	1.31	1.48	1.99	2.23	2.37	2.57
												69.61 AVG
1000.00	NO.	12	19	26	43	68	99	112	105	104	103	96
	PCT.	0.15	0.24	0.38	0.66	1.04	1.71	2.25	2.65	2.98	2.99	3.06
	DT.	1.58	1.58	1.81	1.93	1.91	2.16	2.52	3.16	3.49	3.64	3.99
	STD.	0.76	0.82	0.83	1.02	1.16	1.43	1.64	2.41	2.67	2.75	2.98
												78.84 AVG
1200.00	NO.	16	23	32	52	76	115	129	115	112	109	101
	PCT.	0.21	0.31	0.46	0.81	1.25	2.04	2.68	3.18	3.44	3.54	3.63
	DT.	1.63	1.70	1.81	1.96	2.05	2.23	2.60	3.46	3.85	4.07	4.50
	STD.	0.70	0.91	0.92	1.11	1.22	1.51	1.68	2.63	2.92	3.03	3.37
												72.19 AVG
1400.00	NO.	22	29	43	68	97	140	150	134	127	122	113
	PCT.	0.26	0.38	0.58	0.99	1.52	2.49	3.21	3.76	4.05	4.17	4.27
	DT.	1.50	1.62	1.70	1.82	1.97	2.23	2.68	3.51	3.99	4.29	4.73
	STD.	0.66	0.85	0.88	1.10	1.24	1.54	1.80	2.79	3.07	3.28	3.55
												74.88 AVG
1600.00	NO.	23	31	47	76	107	156	165	158	148	131	119
	PCT.	0.29	0.42	0.65	1.09	1.69	2.80	3.64	4.25	4.59	4.74	4.86
	DT.	1.57	1.68	1.72	1.80	1.98	2.25	2.76	3.55	4.11	4.53	5.12
	STD.	0.71	0.86	0.87	1.06	1.19	1.52	1.83	2.88	3.05	3.26	3.67
												73.59 AVG
1800.00	NO.	25	35	54	84	119	173	178	164	149	139	127
	PCT.	0.31	0.47	0.74	1.26	1.97	3.22	4.16	4.83	5.18	5.33	5.45
	DT.	1.56	1.69	1.72	1.88	2.08	2.34	2.93	3.69	4.36	4.81	5.38
	STD.	0.70	0.82	0.89	1.10	1.20	1.57	1.93	2.85	3.12	3.31	3.73
												74.79 AVG
2000.00	NO.	29	41	62	99	138	190	192	176	161	147	133
	PCT.	0.36	0.54	0.85	1.46	2.27	3.69	4.74	5.47	5.86	6.05	6.19
	DT.	1.55	1.66	1.71	1.85	2.06	2.43	3.09	3.89	4.56	5.16	5.83
	STD.	0.72	0.84	0.90	1.10	1.29	1.65	2.02	3.08	3.46	3.72	4.11
												75.73 AVG
LIMIT	NO.	302	393	493	631	782	913	924	811	654	498	421
	PCT.	3.77	5.38	7.37	10.39	15.08	21.80	28.89	34.40	37.80	39.76	40.49
	DT.	1.57	1.72	1.87	2.06	2.42	2.99	3.92	5.31	7.24	10.00	12.05
	STD.	0.81	1.00	1.16	1.43	1.80	2.43	3.29	4.77	5.45	7.28	9.58
												82.44 AVG
	AVG.	6788.12	6860.78	6877.97	6712.31	6712.74	6684.40	6849.67	7896.66	7288.54	7425.04	7460.22

TABLE B-38

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AO R-H | X PARAMETER ARDDOT

TAPE NO. 1

Y		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT	
200.00	NO.	0	1	4	12	19	25	31	37	40	48	40	
	PCT.	0.00	0.01	0.03	0.10	0.18	0.22	0.29	0.34	0.37	0.37	0.37	
	DT.	0.00	1.00	1.00	1.08	1.16	1.12	1.16	1.14	1.15	1.15	1.15	
	STD.	0.00	0.00	0.00	0.28	0.49	0.43	0.45	0.41	0.42	0.42	0.42	
												78.47	AVG
400.00	NO.	0	2	8	21	34	43	48	58	59	60	61	
	PCT.	0.00	0.02	0.08	0.20	0.36	0.45	0.57	0.69	0.75	0.77	0.77	
	DT.	0.00	1.00	1.25	1.19	1.32	1.33	1.50	1.48	1.59	1.60	1.59	
	STD.	0.00	0.00	0.43	0.39	0.63	0.60	0.91	0.88	1.09	1.16	1.15	
												67.75	AVG
600.00	NO.	2	7	17	34	42	53	62	71	72	73	73	
	PCT.	0.02	0.06	0.18	0.38	0.61	0.76	0.95	1.12	1.26	1.30	1.32	
	DT.	1.00	1.14	1.35	1.38	1.81	1.79	1.92	1.97	2.19	2.23	2.26	
	STD.	0.00	0.35	0.84	0.94	1.26	1.22	1.31	1.33	1.79	1.93	2.04	
												74.55	AVG
800.00	NO.	3	10	24	47	55	66	75	84	81	82	81	
	PCT.	0.02	0.10	0.29	0.57	0.85	1.04	1.28	1.50	1.66	1.70	1.72	
	DT.	1.00	1.20	1.50	1.53	1.93	1.97	2.15	2.24	2.57	2.60	2.65	
	STD.	0.00	0.40	0.82	0.96	1.31	1.31	1.36	1.41	1.98	2.09	2.30	
												78.58	AVG
1000.00	NO.	5	11	30	51	59	72	81	90	84	84	83	
	PCT.	0.05	0.12	0.34	0.65	0.96	1.20	1.48	1.73	1.92	1.97	2.00	
	DT.	1.20	1.36	1.50	1.59	2.03	2.08	2.30	2.41	2.86	2.94	3.01	
	STD.	0.40	0.48	0.85	0.97	1.40	1.39	1.47	1.53	2.07	2.17	2.37	
												79.01	AVG
1200.00	NO.	8	16	35	59	72	82	92	95	90	89	87	
	PCT.	0.06	0.17	0.44	0.78	1.16	1.44	1.82	2.10	2.31	2.39	2.41	
	DT.	1.25	1.31	1.57	1.66	2.01	2.21	2.48	2.77	3.22	3.36	3.47	
	STD.	0.66	0.58	0.93	0.98	1.40	1.60	1.80	1.89	2.36	2.46	2.63	
												80.38	AVG
1400.00	NO.	10	21	40	63	76	90	103	107	102	98	97	
	PCT.	0.10	0.21	0.49	0.85	1.24	1.56	2.02	2.35	2.63	2.71	2.74	
	DT.	1.20	1.24	1.55	1.68	2.04	2.18	2.46	2.75	3.23	3.46	3.54	
	STD.	0.60	0.53	0.89	0.99	1.41	1.66	1.76	1.89	2.37	2.45	2.61	
												78.90	AVG
1600.00	NO.	12	24	44	72	90	106	115	118	108	103	101	
	PCT.	0.12	0.25	0.58	0.98	1.44	1.88	2.40	2.78	3.09	3.17	3.21	
	DT.	1.25	1.29	1.66	1.71	2.01	2.23	2.62	2.95	3.58	3.85	3.98	
	STD.	0.60	0.61	1.04	1.05	1.41	1.70	1.87	2.01	2.46	2.57	2.69	
												79.59	AVG
1800.00	NO.	15	30	57	85	106	122	128	129	114	109	105	
	PCT.	0.16	0.32	0.72	1.14	1.65	2.12	2.69	3.13	3.46	3.56	3.60	
	DT.	1.33	1.33	1.58	1.68	1.95	2.18	2.63	3.04	3.80	4.09	4.30	
	STD.	0.60	0.60	0.95	1.07	1.39	1.70	1.93	2.13	2.66	2.84	2.93	
												82.58	AVG
2000.00	NO.	16	33	61	88	109	127	135	135	116	108	104	
	PCT.	0.17	0.37	0.81	1.28	1.81	2.32	2.95	3.44	3.84	3.99	4.04	
	DT.	1.31	1.39	1.66	1.83	2.08	2.29	2.74	3.19	4.15	4.63	4.87	
	STD.	0.58	0.65	1.10	1.23	1.52	1.81	2.04	2.27	2.84	3.41	3.48	
												81.17	AVG
LIMIT	NO.	213	290	402	500	563	600	593	552	456	389	349	
	PCT.	2.28	3.33	5.28	7.83	10.43	13.53	16.81	19.44	21.52	22.40	22.76	
	DT.	1.34	1.44	1.64	1.96	2.32	2.83	3.55	4.41	5.91	7.22	8.17	
	STD.	0.80	0.98	1.16	1.48	1.85	2.26	2.81	3.45	4.88	6.02	7.55	
												95.27	AVG
	AVG.	7713.02	7325.85	6920.55	6704.25	6612.39	6630.39	6734.37	6835.78	6916.54	6928.47	6942.96	

TABLE B-39

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AB R-H — X PARAMETER ARDDOT

TAPE NO. 1

		200.00	162.00	128.00	98.00	72.00	50.00	32.00	18.00	8.00	2.00	LIMIT	
200.00	NO.	8	17	28	47	65	96	118	137	147	153	156	
	PCT.	0.08	0.15	0.26	0.45	0.65	0.96	1.21	1.48	1.62	1.67	1.72	
	DT.	1.25	1.12	1.14	1.21	1.25	1.25	1.28	1.35	1.38	1.37	1.38	
	STD.	0.66	0.47	0.44	0.62	0.61	0.58	0.61	0.88	1.05	1.03	1.03	
												75.44	AVG
400.00	NO.	12	28	53	87	125	160	188	203	205	210	211	
	PCT.	0.12	0.25	0.50	0.89	1.38	1.99	2.59	3.12	3.37	3.47	3.55	
	DT.	1.25	1.11	1.19	1.28	1.38	1.56	1.72	1.93	2.06	2.07	2.11	
	STD.	0.60	0.41	0.48	0.71	0.87	1.04	1.27	1.72	1.89	1.89	2.08	
												72.94	AVG
600.00	NO.	26	43	79	117	153	192	234	237	227	226	225	
	PCT.	0.28	0.47	0.90	1.48	2.18	3.08	4.02	4.78	5.17	5.39	5.51	
	DT.	1.35	1.37	1.43	1.58	1.78	2.01	2.15	2.53	2.85	2.99	3.07	
	STD.	0.68	0.61	0.71	1.00	1.24	1.50	1.63	2.34	2.73	3.02	3.28	
												78.27	AVG
800.00	NO.	36	56	93	138	182	231	265	261	245	237	228	
	PCT.	0.40	0.65	1.21	1.95	2.89	4.03	5.21	6.17	6.66	6.91	7.04	
	DT.	1.39	1.46	1.63	1.77	1.99	2.19	2.46	2.96	3.40	3.65	3.87	
	STD.	0.76	0.76	0.89	1.13	1.36	1.62	1.89	2.65	3.13	3.51	3.83	
												80.89	AVG
1000.00	NO.	43	68	112	163	201	263	285	273	252	237	223	
	PCT.	0.53	0.87	1.55	2.43	3.50	4.94	6.30	7.42	8.06	8.40	8.55	
	DT.	1.53	1.60	1.73	1.87	2.18	2.35	2.77	3.41	4.01	4.44	4.60	
	STD.	0.95	0.93	1.01	1.18	1.50	1.80	2.10	3.06	3.67	4.34	4.70	
												92.56	AVG
1200.00	NO.	54	84	137	190	232	293	316	286	260	238	222	
	PCT.	0.69	1.10	1.92	2.97	4.25	5.93	7.55	8.85	9.55	9.94	10.11	
	DT.	1.59	1.64	1.75	1.96	2.29	2.54	2.99	3.88	4.60	5.24	5.71	
	STD.	0.97	1.07	1.10	1.31	1.59	1.99	2.28	3.37	4.02	4.99	5.52	
												85.22	AVG
1400.00	NO.	63	101	153	214	255	321	338	304	271	241	224	
	PCT.	0.83	1.36	2.30	3.53	4.96	6.94	8.79	10.24	11.07	11.53	11.72	
	DT.	1.65	1.68	1.58	2.07	2.44	2.71	3.26	4.22	5.12	6.00	6.55	
	STD.	0.95	1.05	1.22	1.41	1.73	2.08	2.42	3.52	4.29	5.35	6.01	
												86.93	AVG
1600.00	NO.	72	114	169	240	290	362	376	336	291	249	227	
	PCT.	0.97	1.55	2.60	3.96	5.59	7.92	10.04	11.66	12.61	13.12	13.36	
	DT.	1.69	1.70	1.93	2.37	2.41	2.74	3.35	4.35	5.43	6.60	7.37	
	STD.	0.94	1.03	1.24	1.40	1.71	2.12	2.52	3.64	4.58	6.31	7.52	
												86.88	AVG
1800.00	NO.	87	135	197	269	331	402	404	358	299	251	224	
	PCT.	1.15	1.80	3.00	4.46	6.34	8.96	11.28	13.12	14.14	14.68	14.92	
	DT.	1.66	1.67	1.91	2.08	2.40	2.79	3.50	4.59	5.93	7.33	8.35	
	STD.	0.97	1.07	1.27	1.48	1.74	2.16	2.61	3.71	4.85	6.78	8.15	
												89.18	AVG
2000.00	NO.	100	154	218	300	366	432	428	377	311	254	225	
	PCT.	1.32	2.10	3.41	5.08	7.17	10.11	12.68	14.70	15.87	16.53	16.80	
	DT.	1.65	1.71	1.96	2.12	2.46	2.93	3.71	4.89	6.40	8.15	9.36	
	STD.	0.96	1.06	1.29	1.49	1.78	2.21	2.75	3.93	5.16	7.60	9.01	
												89.93	AVG
LIMIT	NO.	643	1020	1223	1430	1574	1658	1490	1101	593	193	11	
	PCT.	14.01	18.74	25.24	33.97	44.92	59.31	74.13	86.05	94.18	98.41	99.92	
	DT.	2.08	2.30	2.59	2.98	3.58	4.48	6.23	9.79	19.88	63.89	1138.18	
	STD.	1.35	1.67	2.01	2.40	3.00	4.12	6.18	9.94	22.55	71.25	798.41	
												119.44	AVG
	AVG.	7194.85	6988.67	6783.98	6639.53	6602.98	6587.66	6686.25	6829.02	6952.37	7027.21	7044.91	

TABLE B-40

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA= 60.00

Y PARAMETER AB R-H — X PARAMETER A WKDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
200.00	NO.	1	1	2	2	5	8	12	23	37	45	55
	PCT.	0.01	0.02	0.03	0.03	0.06	0.09	0.14	0.25	0.38	0.48	0.50
	DT.	1.00	2.00	2.00	2.00	1.40	1.38	1.50	1.35	1.27	1.33	1.35
	STD.	0.00	0.00	1.00	1.00	0.80	0.76	1.12	0.91	0.76	0.76	0.79
												1.37 AVG
400.00	NO.	1	1	3	7	12	18	23	39	56	76	81
	PCT.	0.01	0.02	0.04	0.07	0.14	0.20	0.30	0.49	0.73	1.06	1.26
	DT.	1.00	2.00	1.67	1.29	1.42	1.39	1.61	1.59	1.63	1.75	1.95
	STD.	0.00	0.00	0.94	0.70	0.86	0.76	1.37	1.19	1.30	1.31	1.59
												1.29 AVG
600.00	NO.	1	4	8	14	17	22	33	49	73	89	88
	PCT.	0.01	0.04	0.08	0.14	0.20	0.30	0.46	0.73	1.13	1.62	1.88
	DT.	1.00	1.25	1.25	1.21	1.47	1.68	1.76	1.86	1.95	2.28	2.58
	STD.	0.00	0.43	0.66	0.56	0.98	1.82	1.72	1.53	1.50	1.74	2.27
												1.36 AVG
800.00	NO.	2	5	9	16	21	29	42	62	84	98	92
	PCT.	0.02	0.05	0.09	0.16	0.25	0.38	0.59	0.97	1.49	2.08	2.43
	DT.	1.00	1.20	1.22	1.25	1.48	1.62	1.76	1.95	2.23	2.66	3.32
	STD.	0.00	0.40	0.63	0.56	1.10	1.86	1.70	1.60	1.73	1.99	2.57
												1.34 AVG
1000.00	NO.	2	6	10	18	26	37	47	69	91	105	96
	PCT.	0.02	0.06	0.10	0.21	0.34	0.49	0.74	1.22	1.90	2.65	3.46
	DT.	1.50	1.33	1.30	1.44	1.62	1.65	1.98	2.22	2.62	3.16	3.99
	STD.	0.50	0.47	0.64	0.68	1.24	1.14	2.30	2.03	2.22	2.48	2.90
												1.38 AVG
1200.00	NO.	3	8	12	21	32	45	58	82	106	115	101
	PCT.	0.03	0.08	0.12	0.23	0.38	0.56	0.89	1.47	2.24	3.13	3.63
	DT.	1.33	1.25	1.25	1.38	1.59	1.56	1.93	2.24	2.65	3.41	4.50
	STD.	0.47	0.43	0.60	0.65	1.15	1.07	2.13	2.85	2.29	2.65	3.37
												1.42 AVG
1400.00	NO.	7	13	20	30	41	57	68	94	122	129	113
	PCT.	0.06	0.14	0.20	0.34	0.50	0.71	1.07	1.76	2.66	3.68	4.27
	DT.	1.14	1.31	1.25	1.40	1.54	1.56	1.97	2.35	2.73	3.57	4.73
	STD.	0.35	0.46	0.54	0.66	1.11	1.04	2.12	2.07	2.34	2.77	3.55
												1.55 AVG
1600.00	NO.	9	16	23	35	46	61	72	104	135	133	119
	PCT.	0.09	0.17	0.23	0.39	0.57	0.79	1.17	1.99	3.04	4.17	4.86
	DT.	1.22	1.31	1.26	1.40	1.54	1.62	2.03	2.39	2.82	3.93	5.12
	STD.	0.42	0.46	0.53	0.64	1.06	1.03	2.17	2.18	2.47	3.00	3.67
												1.57 AVG
1800.00	NO.	10	17	25	39	51	67	82	118	150	149	127
	PCT.	0.10	0.18	0.26	0.43	0.61	0.86	1.28	2.20	3.40	4.68	5.45
	DT.	1.20	1.29	1.28	1.38	1.51	1.61	1.96	2.34	2.84	3.93	5.39
	STD.	0.40	0.46	0.53	0.62	1.02	1.01	2.06	2.15	2.45	3.01	3.73
												1.54 AVG
2000.00	NO.	14	20	29	42	56	76	97	131	167	162	133
	PCT.	0.13	0.22	0.31	0.49	0.69	1.01	1.51	2.55	3.91	5.35	6.19
	DT.	1.14	1.35	1.34	1.48	1.55	1.66	1.95	2.44	2.93	4.14	5.83
	STD.	0.35	0.48	0.54	0.53	1.00	0.99	2.03	2.29	2.69	3.49	4.11
												1.59 AVG
LIMIT	NO.	204	251	296	356	439	524	631	764	870	733	421
	PCT.	1.81	2.39	3.00	4.01	5.62	7.64	10.81	15.95	24.21	34.38	40.49
	DT.	1.11	1.20	1.27	1.41	1.60	1.83	2.15	2.62	3.49	5.88	12.05
	STD.	0.33	0.42	0.52	0.66	0.86	1.14	1.63	2.18	2.93	5.05	9.58
												2.31 AVG
	AVG.	8956.56	8742.35	8710.69	8448.86	8317.38	8120.88	8013.88	7580.71	7281.09	7281.09	7460.22

TABLE B-41

PARAMETER INTERACTION OFF TAIL

SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AB R-H

X PARAMETER A WKDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.00	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
200.00	NO.	2	2	3	4	8	12	20	23	31	39	40
	PCT.	0.02	0.02	0.02	0.03	0.06	0.10	0.17	0.20	0.27	0.36	0.37
	DT.	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.09	1.10	1.15	1.15
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.28	0.30	0.43	0.42
												2.27 AVG
400.00	NO.	3	3	6	8	15	24	34	36	49	60	61
	PCT.	0.02	0.02	0.05	0.06	0.14	0.23	0.35	0.39	0.59	0.74	0.77
	DT.	1.00	1.00	1.00	1.00	1.20	1.21	1.29	1.36	1.51	1.55	1.59
	STD.	0.00	0.00	0.00	0.00	0.54	0.50	0.79	0.92	1.05	1.87	1.15
												2.17 AVG
600.00	NO.	4	5	11	15	25	36	45	51	68	71	73
	PCT.	0.04	0.05	0.10	0.13	0.24	0.37	0.53	0.64	1.02	1.25	1.32
	DT.	1.25	1.20	1.09	1.07	1.20	1.28	1.47	1.57	1.88	2.20	2.26
	STD.	0.43	0.40	0.29	0.25	0.49	0.51	1.00	1.11	1.35	1.90	2.04
												2.60 AVG
800.00	NO.	7	8	14	20	33	45	54	62	79	81	81
	PCT.	0.06	0.07	0.13	0.18	0.31	0.48	0.68	0.84	1.32	1.63	1.72
	DT.	1.14	1.13	1.14	1.10	1.18	1.33	1.57	1.69	2.10	2.52	2.65
	STD.	0.35	0.33	0.35	0.30	0.46	0.56	1.08	1.26	1.46	2.17	2.30
												2.62 AVG
1000.00	NO.	10	11	17	23	37	49	58	70	83	83	83
	PCT.	0.09	0.10	0.16	0.21	0.36	0.54	0.78	0.97	1.52	1.88	2.00
	DT.	1.10	1.18	1.18	1.13	1.22	1.39	1.49	1.74	2.29	2.83	3.01
	STD.	0.30	0.39	0.38	0.34	0.53	0.60	1.16	1.29	1.52	2.23	2.37
												2.63 AVG
1200.00	NO.	13	14	18	27	40	55	67	78	91	88	87
	PCT.	0.11	0.13	0.18	0.26	0.42	0.65	0.95	1.21	1.84	2.25	2.41
	DT.	1.08	1.14	1.28	1.22	1.32	1.47	1.78	1.94	2.54	3.20	3.47
	STD.	0.27	0.35	0.45	0.42	0.57	0.71	1.23	1.45	1.76	2.47	2.63
												2.61 AVG
1400.00	NO.	13	17	21	31	45	61	73	85	101	100	97
	PCT.	0.11	0.15	0.21	0.30	0.48	0.72	1.06	1.37	2.08	2.56	2.74
	DT.	1.08	1.12	1.24	1.19	1.33	1.48	1.82	2.02	2.58	3.21	3.54
	STD.	0.27	0.32	0.43	0.40	0.60	0.72	1.32	1.55	1.79	2.44	2.61
												2.51 AVG
1600.00	NO.	14	19	23	35	49	66	78	95	107	105	101
	PCT.	0.12	0.17	0.22	0.33	0.53	0.78	1.19	1.60	2.41	2.98	3.21
	DT.	1.07	1.11	1.22	1.17	1.35	1.48	1.91	2.11	2.82	3.56	3.98
	STD.	0.26	0.31	0.41	0.38	0.59	0.70	1.32	1.48	1.82	2.47	2.69
												2.38 AVG
1800.00	NO.	16	21	25	37	53	70	84	102	111	109	105
	PCT.	0.14	0.19	0.25	0.36	0.57	0.85	1.30	1.76	2.67	3.34	3.60
	DT.	1.06	1.14	1.24	1.22	1.36	1.53	1.94	2.17	3.01	3.84	4.30
	STD.	0.24	0.35	0.43	0.41	0.62	0.71	1.37	1.59	1.97	2.67	2.93
												2.34 AVG
2000.00	NO.	17	23	29	40	55	72	88	111	121	110	104
	PCT.	0.15	0.22	0.29	0.41	0.63	0.93	1.43	1.97	2.98	3.74	4.04
	DT.	1.12	1.17	1.24	1.27	1.44	1.61	2.03	2.23	3.08	4.26	4.87
	STD.	0.32	0.38	0.50	0.50	0.68	0.79	1.40	1.63	2.09	2.90	3.48
												2.31 AVG
LIMIT	NO.	138	166	217	291	349	419	469	537	563	483	349
	PCT.	1.23	1.54	2.08	2.95	3.98	5.47	7.45	10.62	14.94	19.80	22.76
	DT.	1.12	1.16	1.20	1.27	1.43	1.63	1.99	2.48	3.33	5.14	8.17
	STD.	0.34	0.39	0.42	0.49	0.62	0.80	1.21	1.72	2.44	3.98	7.55
												3.12 AVG
	AVG.	8650.10	8374.01	8060.06	7748.43	7495.44	7127.42	6768.02	6736.19	6495.72	6626.95	6942.96

TABLE B-42

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 60.00

Y PARAMETER AS R-H   X PARAMETER A WKDF

TAPE NO. 1

Y		10.00	8.10	6.40	4.90	3.60	2.50	1.60	0.90	0.40	0.10	LIMIT
200.00	NO.	9	11	14	15	27	40	42	84	121	144	156
	PCT.	0.07	0.10	0.14	0.14	0.25	0.38	0.61	0.84	1.22	1.55	1.72
	DT.	1.00	1.09	1.21	1.20	1.15	1.17	1.24	1.25	1.26	1.35	1.38
	STD.	0.00	0.29	0.56	0.94	0.45	0.49	0.69	0.69	0.70	0.99	1.03
												2.17 AVG
400.00	NO.	12	14	22	33	54	75	103	129	174	208	211
	PCT.	0.10	0.13	0.21	0.30	0.53	0.80	1.21	1.64	2.44	3.23	3.58
	DT.	1.08	1.14	1.18	1.12	1.22	1.33	1.47	1.60	1.76	1.95	2.11
	STD.	0.28	0.35	0.57	0.48	0.60	0.66	0.90	1.09	1.33	1.70	2.08
												1.98 AVG
600.00	NO.	15	22	36	54	78	97	132	167	221	234	225
	PCT.	0.14	0.22	0.34	0.50	0.80	1.18	1.73	2.80	3.85	5.04	5.61
	DT.	1.20	1.23	1.19	1.17	1.23	1.53	1.66	1.87	2.19	2.70	3.07
	STD.	0.40	0.42	0.52	0.46	0.64	0.79	1.22	1.33	1.75	2.35	3.28
												2.04 AVG
800.00	NO.	22	29	44	66	90	127	162	201	243	247	228
	PCT.	0.21	0.29	0.43	0.63	1.01	1.54	2.24	3.24	4.96	6.42	7.04
	DT.	1.18	1.24	1.23	1.20	1.29	1.52	1.73	2.02	2.56	3.26	3.07
	STD.	0.39	0.43	0.52	0.47	0.67	0.81	1.24	1.49	1.95	2.01	3.83
												2.09 AVG
1000.00	NO.	3C	39	54	77	113	146	177	224	256	253	223
	PCT.	0.29	0.39	0.54	0.79	1.26	1.87	2.67	3.93	6.03	7.80	8.55
	DT.	1.20	1.26	1.26	1.29	1.40	1.60	1.89	2.20	2.95	3.84	4.80
	STD.	0.40	0.44	0.52	0.58	0.86	0.95	1.63	1.77	2.47	3.41	4.70
												2.12 AVG
1200.00	NO.	35	44	56	84	124	160	208	248	282	261	222
	PCT.	0.38	0.49	0.65	0.95	1.48	2.19	3.18	4.78	7.14	9.19	10.11
	DT.	1.34	1.41	1.45	1.42	1.50	1.71	1.99	2.38	3.17	4.41	5.71
	STD.	0.63	0.72	0.73	0.73	0.89	1.06	1.66	1.98	2.66	3.88	5.52
												2.29 AVG
1400.00	NO.	41	53	69	100	140	180	222	274	307	275	224
	PCT.	0.46	0.63	0.84	1.20	1.80	2.59	3.72	5.53	8.28	10.66	11.72
	DT.	1.41	1.45	1.52	1.50	1.61	1.89	2.10	2.53	3.38	4.86	6.55
	STD.	0.70	0.84	0.93	0.94	1.09	1.23	1.81	2.19	2.85	4.23	6.01
												2.37 AVG
1600.00	NO.	45	60	76	112	154	195	237	298	328	283	227
	PCT.	0.54	0.73	0.96	1.38	2.05	2.90	4.20	6.33	9.39	12.11	13.36
	DT.	1.51	1.53	1.58	1.54	1.67	1.86	2.22	2.66	3.59	5.36	7.37
	STD.	0.81	0.92	1.02	1.00	1.15	1.31	1.93	2.36	3.02	4.84	7.52
												2.38 AVG
1800.00	NO.	52	69	93	132	175	216	262	326	351	295	224
	PCT.	0.63	0.85	1.14	1.61	2.37	3.30	4.74	7.68	10.47	13.52	14.92
	DT.	1.52	1.54	1.54	1.53	1.70	1.92	2.27	2.72	3.74	5.74	8.35
	STD.	0.80	0.89	0.96	0.95	1.20	1.39	1.97	2.53	3.20	5.13	8.15
												2.52 AVG
2000.00	NO.	59	77	105	144	167	234	291	359	385	309	225
	PCT.	0.74	0.99	1.33	1.85	2.64	3.70	5.38	8.00	11.84	15.28	16.80
	DT.	1.58	1.61	1.59	1.61	1.77	1.98	2.32	2.79	3.85	6.19	9.36
	STD.	0.79	0.98	0.96	0.97	1.23	1.40	1.98	2.59	3.43	5.59	9.01
												2.57 AVG
LIMIT	NO.	472	541	637	798	963	1157	1352	1520	1458	795	11
	PCT.	7.53	9.01	11.03	14.21	18.70	24.53	33.15	46.41	65.83	87.93	99.92
	DT.	2.00	2.09	2.17	2.23	2.43	2.66	3.07	3.83	5.66	13.86	1138.18
	STD.	1.09	1.22	1.33	1.50	1.75	2.01	2.59	3.65	5.85	16.51	798.41
												4.05 AVG
	AVG.	8464.47	8339.53	8138.57	7905.07	7682.36	7457.69	7245.93	7034.11	6827.19	6862.82	7044.91

TABLE B-43

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA= 60,00

Y PARAMETER AO R&H — X PARAMETER A WJDF

TAPE NO, 1

		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT
200,00	NO,	2	2	3	4	7	11	16	20	34	48	55
	PCT,	0,02	0,02	0,02	0,03	0,06	0,10	0,16	0,20	0,37	0,51	0,59
	CT,	1,00	1,00	1,00	1,00	1,14	1,09	1,25	1,25	1,35	1,33	1,35
	STD,	0,00	0,00	0,00	0,00	0,35	0,29	0,43	0,43	0,80	0,82	0,79
												1,56 AVG
400,00	NO,	3	4	5	6	12	19	30	39	56	78	81
	PCT,	0,02	0,03	0,05	0,06	0,11	0,19	0,31	0,46	0,78	1,09	1,26
	CT,	1,00	1,00	1,20	1,17	1,17	1,26	1,30	1,49	1,75	1,74	1,95
	STD,	0,00	0,00	0,40	0,37	0,37	0,44	0,53	0,90	1,12	1,20	1,59
												1,43 AVG
600,00	NO,	5	5	9	11	18	25	34	46	70	87	88
	PCT,	0,04	0,05	0,09	0,10	0,18	0,32	0,48	0,69	1,18	1,62	1,88
	CT,	1,00	1,20	1,22	1,16	1,22	1,60	1,76	1,89	2,11	2,33	2,68
	STD,	0,00	0,40	0,42	0,39	0,42	0,89	0,84	1,62	1,89	1,96	2,27
												1,46 AVG
800,00	NO,	5	6	10	12	20	28	40	55	81	95	92
	PCT,	0,04	0,07	0,11	0,14	0,21	0,38	0,58	0,90	1,53	2,10	2,43
	CT,	1,00	1,50	1,40	1,33	1,70	1,68	1,83	2,05	[illegible]	2,77	3,32
	STD,	0,00	0,50	0,49	0,47	0,46	0,97	0,89	1,55	1,96	2,18	2,57
												1,40 AVG
1000,00	NO,	5	7	15	17	26	37	48	64	95	104	96
	PCT,	0,04	0,06	0,16	0,16	0,30	0,51	0,75	1,12	1,92	2,65	3,06
	CT,	1,00	1,43	1,33	1,35	1,42	1,73	1,96	2,19	2,54	3,19	3,99
	STD,	0,00	0,49	0,60	0,59	1,04	1,43	1,37	1,77	2,10	2,53	2,98
												1,43 AVG
1200,00	NO,	6	9	17	21	31	47	63	81	110	115	101
	PCT,	0,05	0,10	0,18	0,22	0,34	0,60	0,89	1,39	2,30	3,14	3,63
	CT,	1,00	1,33	1,29	1,29	1,35	1,60	1,78	2,15	2,62	3,43	4,50
	STD,	0,00	0,47	0,57	0,55	0,97	1,30	1,27	1,58	2,11	2,73	3,37
												1,43 AVG
1400,00	NO,	10	11	24	26	39	57	73	95	125	131	113
	PCT,	0,08	0,13	0,23	0,29	0,44	0,75	1,09	1,69	2,72	3,72	4,27
	CT,	1,00	1,23	1,21	1,29	1,41	1,65	1,98	2,23	2,73	3,56	4,73
	STD,	0,00	0,42	0,50	0,70	1,08	1,32	1,29	1,70	2,21	2,90	3,55
												1,57 AVG
1600,00	NO,	12	16	27	33	47	63	78	102	134	141	119
	PCT,	0,10	0,15	0,26	0,34	0,53	0,84	1,22	1,88	3,09	4,22	4,86
	CT,	1,00	1,19	1,22	1,27	1,40	1,67	1,96	2,31	2,89	3,75	5,12
	STD,	0,00	0,39	0,50	0,66	1,00	1,27	1,28	1,77	2,30	2,99	3,67
												1,56 AVG
1800,00	NO,	13	18	29	35	51	69	88	117	149	154	127
	PCT,	0,12	0,18	0,30	0,36	0,59	0,94	1,38	2,16	3,48	4,74	5,45
	CT,	1,15	1,26	1,31	1,37	1,45	1,71	1,97	2,32	2,93	3,86	5,38
	STD,	0,36	0,45	0,53	0,60	0,98	1,24	1,26	1,68	2,27	2,97	3,73
												1,58 AVG
2000,00	NO,	13	22	35	37	54	74	96	126	158	168	133
	PCT,	0,12	0,22	0,36	0,45	0,69	1,06	1,56	2,47	3,94	5,41	6,19
	CT,	1,15	1,23	1,29	1,54	1,59	1,80	2,04	2,46	3,13	4,04	5,83
	STD,	0,36	0,42	0,51	1,13	1,47	1,57	1,59	1,93	2,56	3,25	4,11
												1,56 AVG
LIMIT	NO,	223	271	331	379	429	503	589	699	783	715	421
	PCT,	2,23	2,80	3,68	4,99	6,37	8,49	11,60	16,63	24,61	34,38	40,49
	CT,	1,25	1,33	1,47	1,65	1,86	2,12	2,47	2,98	3,94	6,03	12,05
	STD,	0,51	0,56	0,71	0,87	1,14	1,48	1,83	2,29	3,32	4,80	9,58
												2,50 AVG
	AVG,	9776,99	9441,99	9208,41	8934,63	8603,95	8383,64	8218,71	7857,98	7508,77	7374,40	7460,22

TABLE B-44

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA = 60,00

Y PARAMETER AF P-F — X PARAMETER A WJDF

TAPE NO. 1

Y PARAMETER		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT	
200,00	NO.	4	4	7	9	12	14	23	26	30	36	40	
	PCT.	0,03	0,03	0,06	0,07	0,10	0,12	0,19	0,22	0,26	0,32	0,37	
	LT.	1,00	1,00	1,00	1,00	1,08	1,07	1,04	1,04	1,07	1,11	1,15	
	STD.	0,00	0,00	0,00	0,00	0,28	0,26	0,20	0,19	0,25	0,39	0,42	
												3,31	AVG
400,00	NO.	5	9	14	16	21	24	36	41	50	58	61	
	PCT.	0,04	0,07	0,12	0,15	0,19	0,23	0,35	0,42	0,55	0,66	0,77	
	LT.	1,00	1,00	1,07	1,06	1,14	1,21	1,22	1,29	1,38	1,43	1,59	
	STD.	0,00	0,00	0,26	0,23	0,35	0,50	0,63	0,67	0,66	0,72	1,15	
												2,88	AVG
600,00	NO.	6	11	17	22	28	35	45	52	68	72	73	
	PCT.	0,05	0,09	0,15	0,21	0,29	0,38	0,57	0,73	0,97	1,17	1,32	
	LT.	1,00	1,00	1,12	1,16	1,29	1,37	1,60	1,75	1,78	2,03	2,26	
	STD.	0,00	0,00	0,32	0,39	0,52	0,68	1,04	1,28	1,23	1,33	2,04	
												2,62	AVG
800,00	NO.	6	12	20	25	33	39	49	60	77	82	81	
	PCT.	0,06	0,10	0,18	0,25	0,36	0,48	0,71	0,91	1,25	1,51	1,72	
	LT.	1,17	1,08	1,15	1,24	1,36	1,54	1,82	1,90	2,04	2,30	2,65	
	STD.	0,37	0,28	0,36	0,43	0,54	0,75	1,06	1,36	1,47	1,56	2,30	
												2,55	AVG
1000,00	NO.	7	13	22	26	36	42	50	65	82	86	83	
	PCT.	0,06	0,11	0,20	0,27	0,40	0,54	0,80	1,05	1,44	1,75	2,00	
	LT.	1,14	1,08	1,14	1,21	1,39	1,62	2,00	2,00	2,21	2,55	3,01	
	STD.	0,35	0,27	0,34	0,41	0,54	0,79	1,20	1,42	1,61	1,65	2,37	
												2,44	AVG
1200,00	NO.	11	16	26	33	42	50	54	73	86	93	87	
	PCT.	0,10	0,15	0,25	0,33	0,46	0,65	0,91	1,22	1,72	2,11	2,41	
	LT.	1,18	1,19	1,19	1,24	1,43	1,62	2,11	2,10	2,50	2,84	3,47	
	STD.	0,39	0,39	0,39	0,49	0,58	0,80	1,18	1,46	1,73	1,51	2,63	
												2,50	AVG
1400,00	NO.	12	18	28	36	45	55	59	84	99	106	97	
	PCT.	0,11	0,17	0,26	0,35	0,52	0,71	0,97	1,36	1,96	2,40	2,74	
	LT.	1,17	1,17	1,18	1,22	1,44	1,62	2,07	2,02	2,47	2,84	3,54	
	STD.	0,37	0,37	0,38	0,46	0,65	0,82	1,19	1,44	1,74	1,83	2,61	
												2,40	AVG
1600,00	NO.	14	20	32	40	52	63	68	96	113	114	101	
	PCT.	0,13	0,18	0,30	0,39	0,59	0,81	1,10	1,57	2,27	2,82	3,21	
	LT.	1,14	1,15	1,16	1,23	1,42	1,60	2,03	2,05	2,52	3,10	3,98	
	STD.	0,35	0,36	0,36	0,47	0,63	0,79	1,16	1,42	1,72	1,92	2,69	
												2,31	AVG
1800,00	NO.	16	22	35	42	59	70	74	104	124	121	105	
	PCT.	0,15	0,21	0,33	0,43	0,67	0,90	1,21	1,72	2,53	3,17	3,60	
	LT.	1,19	1,18	1,17	1,29	1,42	1,61	2,04	2,07	2,56	3,28	4,30	
	STD.	0,39	0,39	0,38	0,55	0,62	0,76	1,14	1,42	1,71	2,11	2,93	
												2,29	AVG
2000,00	NO.	17	23	37	46	64	75	85	111	130	125	104	
	PCT.	0,17	0,22	0,36	0,46	0,74	1,01	1,40	1,93	2,84	3,56	4,04	
	LT.	1,24	1,22	1,22	1,30	1,45	1,69	2,07	2,18	2,74	3,59	4,87	
	STD.	0,42	0,41	0,41	0,51	0,61	0,78	1,16	1,44	1,80	2,41	3,48	
												2,28	AVG
LIMIT	NO.	172	216	261	316	378	427	466	542	553	488	349	
	PCT.	1,60	2,12	2,72	3,51	4,55	5,87	7,75	10,57	14,67	20,06	22,76	
	LT.	1,17	1,23	1,31	1,39	1,51	1,72	2,06	2,44	3,32	5,15	8,17	
	STD.	0,37	0,42	0,53	0,57	0,69	0,88	1,22	1,56	2,42	4,12	7,55	
												3,24	AVG
	AVG.	8416,66	8127,66	7896,06	7677,09	7463,45	7283,40	6997,96	6902,67	6649,07	6835,85	6942,96	

TABLE B-45

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225,00 LAMDA = 60,00

Y PARAMETER AB R+F — X PARAMETER A WJDF

TAPE NO. 1

		10,00	8,10	6,40	4,90	3,60	2,50	1,60	0,90	0,40	0,10	LIMIT	
200,00	NO.	6	12	16	26	39	49	73	88	118	143	156	
	PCT.	0,07	0,10	0,14	0,23	0,34	0,43	0,69	0,85	1,24	1,52	1,72	
	LT.	1,13	1,06	1,06	1,04	1,10	1,10	1,19	1,20	1,31	1,34	1,38	
	STD.	0,33	0,28	0,24	0,19	0,30	0,30	0,49	0,50	0,94	0,97	1,03	
												2,81	AVG
400,00	NO.	11	22	31	46	62	84	121	143	176	212	211	
	PCT.	0,10	0,19	0,28	0,42	0,61	0,85	1,32	1,72	2,50	3,15	3,55	
	LT.	1,16	1,09	1,13	1,13	1,23	1,26	1,37	1,51	1,78	1,86	2,11	
	STD.	0,57	0,42	0,55	0,49	0,52	0,54	0,72	0,84	1,31	1,47	2,08	
												2,41	AVG
600,00	NO.	16	26	41	56	82	113	147	174	219	237	225	
	PCT.	0,15	0,25	0,40	0,57	0,87	1,33	1,97	2,65	3,90	4,89	5,51	
	LT.	1,19	1,19	1,22	1,24	1,33	1,48	1,68	1,91	2,23	2,59	3,07	
	STD.	0,53	0,48	0,56	0,54	0,59	0,74	0,95	1,38	1,96	2,50	3,28	
												2,22	AVG
800,00	NO.	17	30	48	66	98	130	169	202	246	252	228	
	PCT.	0,16	0,32	0,50	0,73	1,10	1,67	2,51	3,41	4,99	6,25	7,04	
	LT.	1,29	1,33	1,31	1,34	1,41	1,61	1,86	2,11	2,54	3,11	3,87	
	STD.	0,57	0,54	0,58	0,56	0,59	0,79	1,02	1,40	2,15	2,78	3,83	
												2,26	AVG
1000,00	NO.	22	36	59	81	114	146	182	224	264	262	223	
	PCT.	0,24	0,40	0,64	0,96	1,35	2,01	2,97	4,07	5,97	7,60	8,55	
	LT.	1,36	1,39	1,36	1,46	1,48	1,73	2,04	2,28	2,83	3,63	4,80	
	STD.	0,57	0,59	0,63	0,62	0,77	1,14	1,40	1,74	2,52	3,46	4,70	
												2,24	AVG
1200,00	NO.	26	41	63	86	125	166	206	251	283	273	222	
	PCT.	0,32	0,49	0,76	1,06	1,57	2,35	3,45	4,63	7,06	9,80	10,11	
	LT.	1,43	1,51	1,51	1,51	1,58	1,78	2,10	2,41	3,12	4,13	5,71	
	STD.	0,76	0,86	0,89	0,84	0,89	1,19	1,46	1,81	2,71	3,84	5,52	
												2,35	AVG
1400,00	NO.	37	51	72	96	136	182	226	282	307	288	224	
	PCT.	0,41	0,59	0,89	1,25	1,84	2,75	3,99	5,67	8,21	10,46	11,72	
	LT.	1,36	1,45	1,54	1,59	1,69	1,90	2,21	2,52	3,36	4,55	6,55	
	STD.	0,75	0,82	0,88	0,92	1,07	1,33	1,60	1,94	2,84	4,11	6,01	
												2,45	AVG
1600,00	NO.	43	59	86	113	157	201	249	313	334	304	227	
	PCT.	0,48	0,69	1,05	1,45	2,15	3,10	4,50	6,46	9,35	11,94	13,36	
	LT.	1,40	1,46	1,52	1,61	1,71	1,93	2,27	2,58	3,52	4,92	7,37	
	STD.	0,64	0,67	0,89	0,95	1,12	1,39	1,66	2,02	3,00	4,46	7,52	
												2,48	AVG
1800,00	NO.	49	68	94	121	180	228	273	336	359	314	224	
	PCT.	0,57	0,81	1,18	1,62	2,44	3,54	5,07	7,25	10,53	13,38	14,92	
	LT.	1,45	1,49	1,57	1,66	1,70	1,94	2,33	2,71	3,67	5,34	8,35	
	STD.	0,81	0,83	0,87	0,96	1,09	1,41	1,71	2,13	3,25	4,90	8,15	
												2,50	AVG
2000,00	NO.	57	83	109	134	196	243	299	362	378	332	225	
	PCT.	0,65	0,95	1,36	1,84	2,76	3,95	5,67	8,10	11,78	15,08	16,80	
	LT.	1,44	1,43	1,57	1,72	1,77	2,04	2,38	2,80	3,90	5,69	9,36	
	STD.	0,77	0,79	0,84	1,04	1,22	1,49	1,77	2,21	3,38	5,20	9,01	
												2,57	AVG
LIMIT	NO.	507	600	720	856	1044	1222	1365	1463	1332	833	11	
	PCT.	6,36	10,15	12,63	15,83	20,34	25,52	35,09	47,58	65,80	87,69	99,92	
	LT.	2,07	2,12	2,20	2,32	2,44	2,72	3,22	4,08	6,19	13,19	1138,18	
	STD.	1,06	1,19	1,33	1,52	1,73	2,13	2,72	3,77	6,60	14,70	798,41	
												4,16	AVG
	AVG.	9303,19	8596,73	8475,08	8121,16	7819,05	7569,71	7368,05	7182,11	6960,68	6976,15	7044,91	

6. Miscellaneous Interactions

a. Minimum Range

(C) Figure B-34 is a plot of the range versus probability of occurrence for full sphere coverage. If a 0.95 probability of track is desired, 2.5% of the range data at the minimum and maximum ends of the distribution can be eliminated. Using this 2.5% criterion, the minimum range requirement is 765 ft. for a full coverage tracker.

(C) Figure B-35 is a plot of the range versus probability of occurrence for AI radar coverage. Using the same criterion as for the full coverage case, the minimum range requirement is 1200 ft.

b. Aircraft "g" loading.

(C) Figure B-36 is a cumulative probability that the "g" loading was greater than a certain value. As an example, 5% of the time the aircraft was pulling 6 or more "g's".

c. Glint Interaction (Fig. 43)

(C) The parameters interacted in order to give a preliminary look at glint were range versus target rate of rotation for various target aspects for AI radar coverage. Target aspect in this case is referenced to the nose of the target aircraft. The data for the 162° to 180° target aspect case represents a small amount of data. The effect of the small data base can be seen in Fig. 43 as widely varying noise on the average target rate of rotation.

(C) Referring to Fig. B-37, it can be seen that, as the range to the target decreases, the rotational rate of the target increases. This rate increase increases the frequency of the glint, thus lessening the effect on the tracking circuits at close range. This indicates that it is possible to increase the tracking loop's bandwidth at short ranges without worsening the glint problems. A notable exception to this is the head-on case where the target is nonmaneuvering prior to a flyby. In this case, an increase in bandwidth will probably cause an earlier break lock.

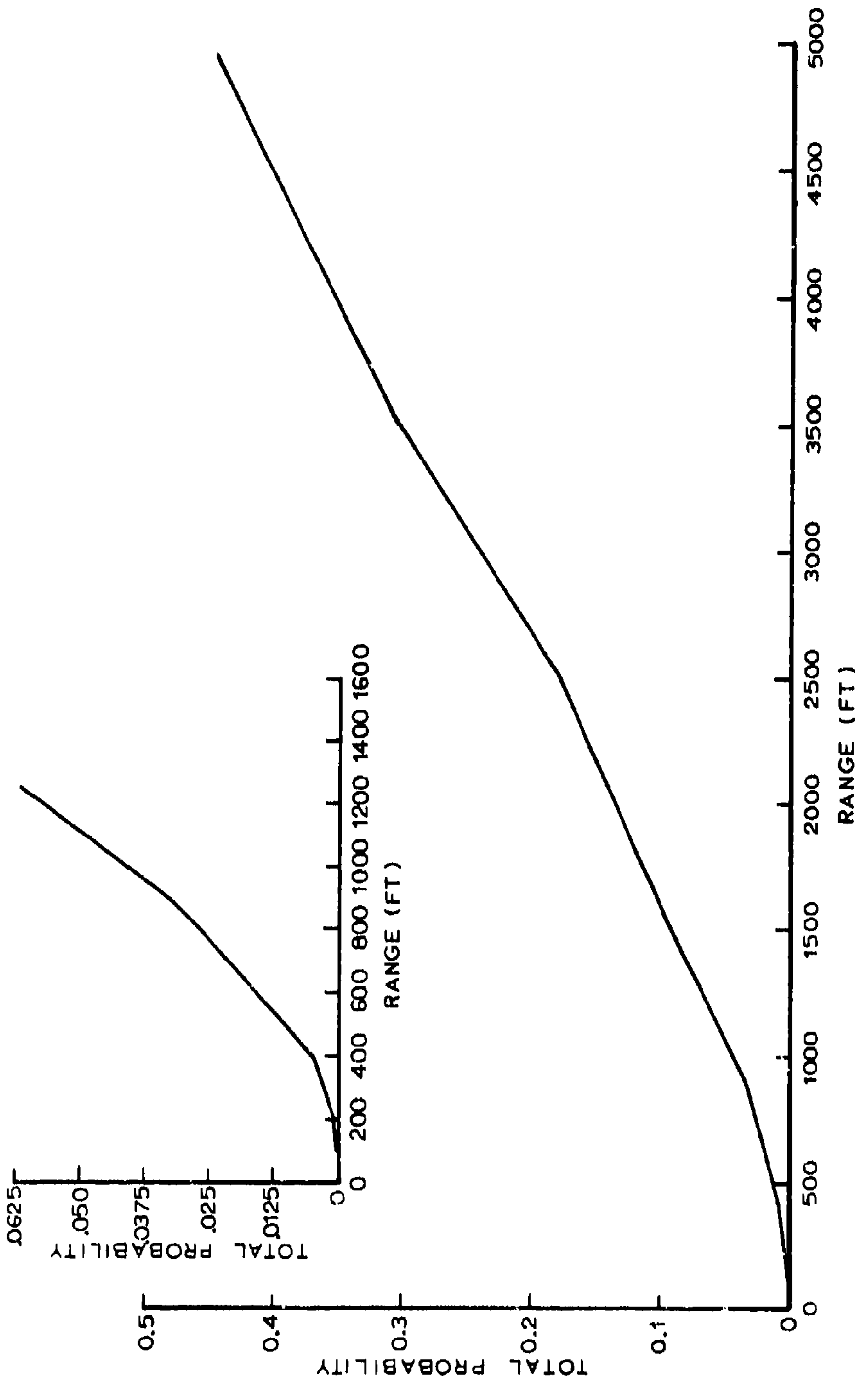


FIG. B-34- CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE FOR FULL SPHERE COVERAGE

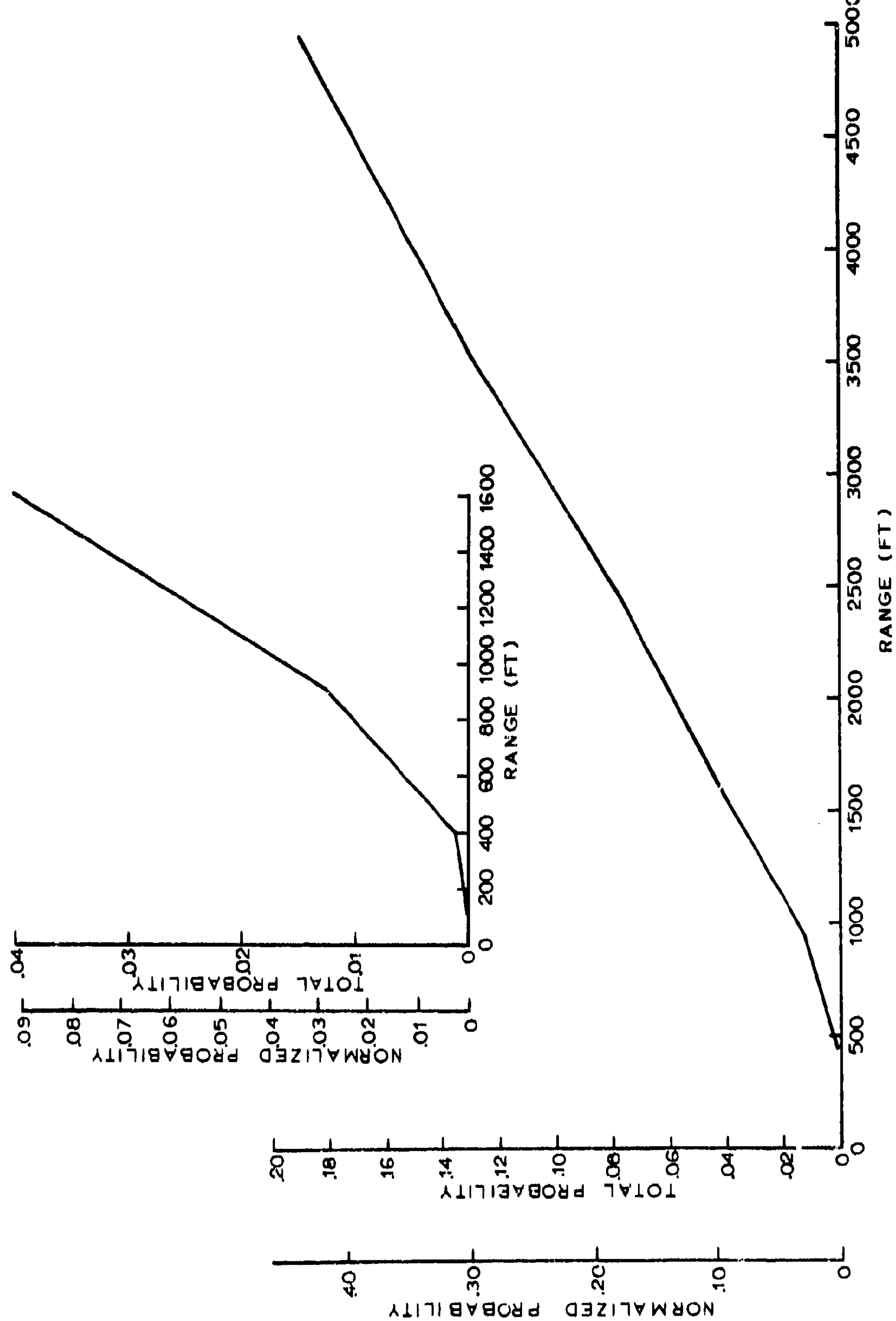


FIG. B-35 - CUMULATIVE PROBABILITY DISTRIBUTION OF RANGE FOR AI RADAR COVERAGE

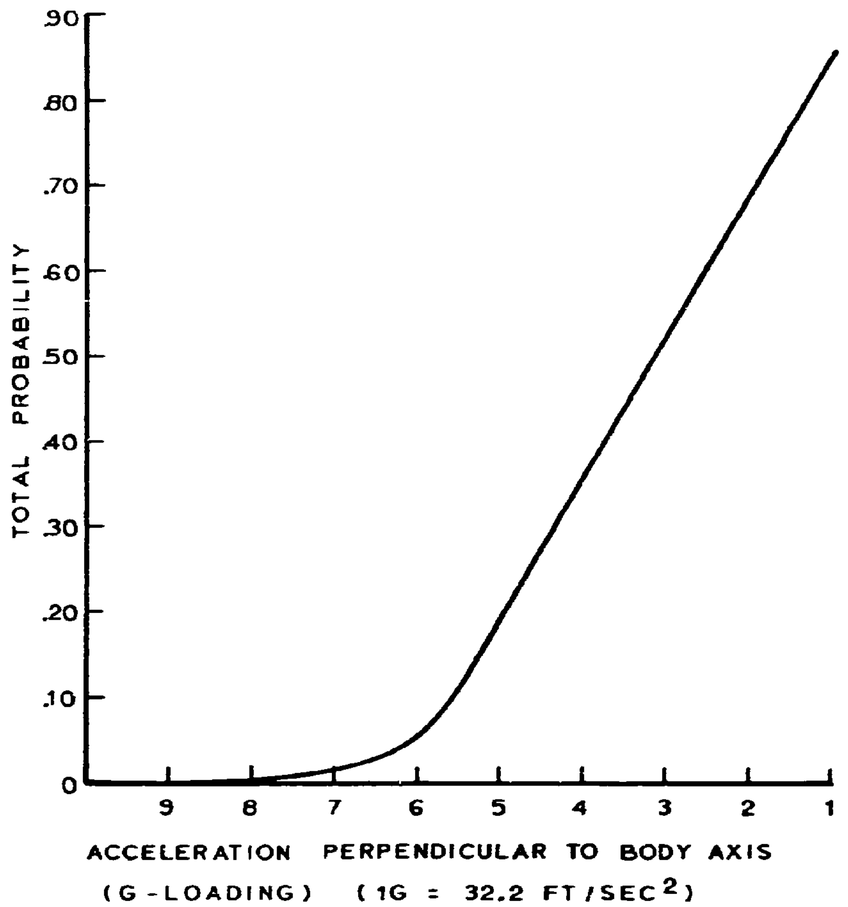


FIG. B-36 - CUMULATIVE PROBABILITY DISTRIBUTION OF ACCELERATION PERPENDICULAR TO BODY AXIS FOR FULL SPHERE COVERAGE AND MINIMUM RANGE = 225 FT

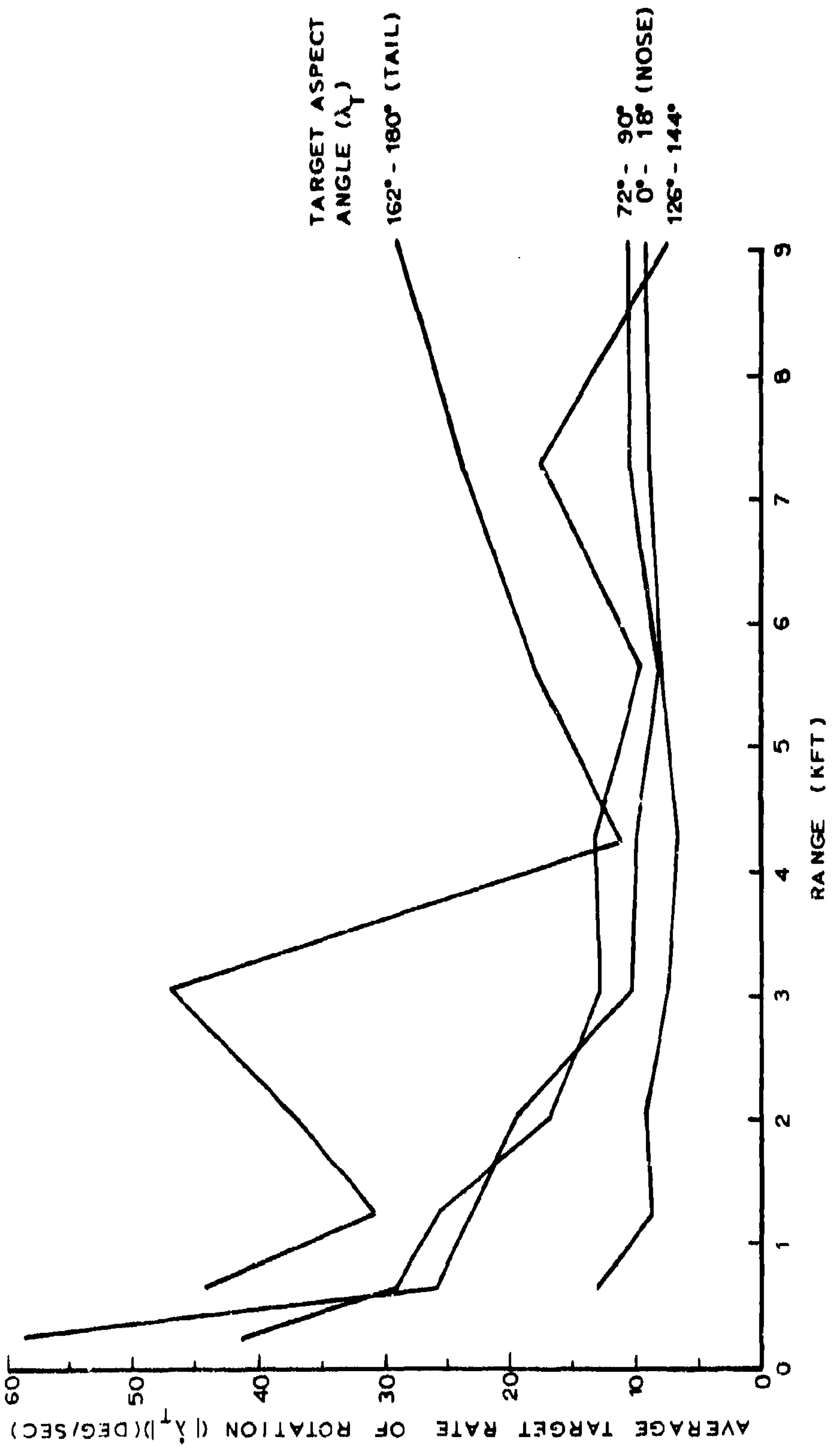


FIG. B-37 - AVERAGE TARGET RATE OF ROTATION AS A FUNCTION OF RANGE AND TARGET ASPECT ANGLE FOR AI RADAR COVERAGE

7. Data

Tables for Miscellaneous Interactions

a. Minimum Range

i. Nose sector (AI radar coverage) - Table B-46

ii. Tail sector - Table 47

iii. Full sphere - Table B-48

b. Fighter G's

Full sphere - Table B-49

c. Glint

i. Nose sector (AI radar coverage)

(a)	Target aspect angle (LAMB-T)	0 to 18°	Table B-50
(b)		18 to 36°	Table B-51
(c)		36 to 54°	Table B-52
(d)		54 to 72°	Table B-53
(e)		72 to 90°	Table B-54
(f)		90 to 108°	Table B-55
(g)		108 to 126°	Table B-56
(h)		126 to 144°	Table B-57
(i)		144 to 162°	Table B-58
(j)		162 to 180°	Table B-59

ii. Tail sector

(a)	Target aspect angle (LAMB-T)	0 to 18°	Table B-60
(b)		18 to 36°	Table B-61
(c)		36 to 54°	Table B-62
(d)		54 to 72°	Table B-63
(e)		72 to 90°	Table B-64
(f)		90 to 108°	Table B-65
(g)		108 to 126°	Table B-66
(h)		126 to 144°	Table B-67
(i)		144 to 162°	Table B-68
(j)		162 to 180°	Table B-69

iii. Full sphere

(a)	Target aspect angle (LAMB-T)	0 - 18° - Table B-70
(b)		18 - 36° - Table B-71
(c)		36 - 54° - Table B-72
(d)		54 - 72° - Table B-73
(e)		72 - 90° - Table B-74
(f)		90 - 108° - Table B-75
(g)		108 - 126° - Table B-76
(h)		126 - 144° - Table B-77
(i)		144 - 162° - Table B-78
(j)		162 - 180° - Table B-79

TABLE B-46

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00

Y PARAMETER LT-DST — X PARAMETER RANGE

TAPE NO. 1

Y PARAMETER LT-DST		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NE,	0	0	0	0	2	5	10	20	23	25	37
	PCT,	0.00	0.00	0.00	0.00	0.02	0.04	0.09	0.17	0.19	0.21	0.31
	DT,	0.00	0.00	0.00	0.00	1.00	1.00	1.10	1.05	1.04	1.04	1.05
	STD,	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.22	0.20	0.20	0.23
												10908.94 AVG
2.00	NE,	0	0	0	5	20	58	104	149	175	195	256
	PCT,	0.00	0.00	0.00	0.04	0.17	0.52	1.09	1.71	2.08	2.30	3.45
	DT,	0.00	0.00	0.00	1.00	1.05	1.12	1.32	1.44	1.49	1.48	1.69
	STD,	0.00	0.00	0.00	0.00	0.22	0.37	0.75	0.99	1.04	1.01	1.41
												11265.84 AVG
4.50	NE,	0	0	4	23	80	172	273	349	419	459	555
	PCT,	0.00	0.00	0.03	0.19	0.78	2.10	4.06	6.20	7.73	8.75	12.38
	DT,	0.00	0.00	1.00	1.04	1.23	1.53	1.86	2.23	2.31	2.39	2.79
	STD,	0.00	0.00	0.00	0.20	0.57	0.92	1.33	1.85	1.92	1.97	3.20
												9488.93 AVG
8.00	NE,	0	0	13	65	163	287	404	492	580	625	725
	PCT,	0.00	0.00	0.10	0.59	1.95	4.74	8.40	12.41	15.89	18.13	23.75
	DT,	0.00	0.00	1.00	1.14	1.50	2.07	2.60	3.16	3.43	3.64	4.10
	STD,	0.00	0.00	0.00	0.35	0.90	1.51	2.14	2.76	2.98	3.11	4.80
												8344.48 AVG
12.50	NE,	0	0	23	124	250	360	457	520	591	635	717
	PCT,	0.00	0.00	0.19	1.21	3.53	7.33	12.20	17.41	21.93	25.16	32.43
	DT,	0.00	0.00	1.04	1.22	1.77	2.55	3.35	4.19	4.65	4.96	5.67
	STD,	0.00	0.00	0.20	0.59	1.05	1.86	2.53	3.31	3.64	3.84	5.54
												7922.47 AVG
18.00	NE,	0	1	54	185	308	409	485	531	574	599	665
	PCT,	0.00	0.01	0.46	2.06	5.07	9.46	14.84	20.50	25.52	29.24	37.40
	DT,	0.00	1.00	1.07	1.41	2.06	2.90	3.84	4.84	5.57	6.12	7.05
	STD,	0.00	0.00	0.32	0.81	1.35	2.21	2.98	3.83	4.16	4.47	6.33
												7649.71 AVG
24.50	NE,	0	1	74	219	333	423	482	518	555	573	623
	PCT,	0.00	0.01	0.66	2.75	6.03	10.68	16.23	22.04	27.27	31.13	39.55
	DT,	0.00	1.00	1.12	1.57	2.27	3.16	4.22	5.33	6.16	6.81	7.95
	STD,	0.00	0.00	0.40	0.97	1.72	2.50	3.25	4.24	4.62	4.87	6.73
												7485.95 AVG
32.00	NE,	0	5	95	240	351	423	478	511	536	551	593
	PCT,	0.00	0.05	0.90	3.35	6.82	11.58	17.24	23.20	28.52	32.42	41.01
	DT,	0.00	1.20	1.19	1.74	2.44	3.43	4.52	5.69	6.67	7.37	8.66
	STD,	0.00	0.40	0.53	1.17	1.87	2.72	3.43	4.42	4.94	5.20	7.10
												7376.06 AVG
40.50	NE,	0	8	106	245	349	413	465	495	515	524	561
	PCT,	0.00	0.07	1.08	3.64	7.25	12.10	17.83	23.88	29.27	33.22	41.98
	DT,	0.00	1.13	1.27	1.86	2.60	3.67	4.80	6.04	7.12	7.94	9.38
	STD,	0.00	0.33	0.65	1.30	1.98	2.91	3.61	4.63	5.18	5.43	7.58
												7344.02 AVG
50.00	NE,	0	10	111	246	350	409	457	485	500	509	543
	PCT,	0.00	0.09	1.14	3.77	7.49	12.43	18.19	24.29	29.71	33.70	42.52
	DT,	0.00	1.10	1.29	1.92	2.68	3.81	4.99	6.27	7.45	8.29	9.81
	STD,	0.00	0.30	0.65	1.32	2.05	3.02	3.72	4.76	5.38	5.61	7.91
												7315.23 AVG
LIMIT	NE,	0	16	120	251	338	379	415	431	435	434	445
	PCT,	0.00	0.14	1.27	4.04	7.92	12.99	18.84	25.12	30.70	34.75	43.79
	DT,	0.00	1.06	1.33	2.02	2.93	4.30	5.69	7.30	8.84	10.03	12.33
	STD,	0.00	0.24	0.66	1.34	2.23	3.56	4.24	5.34	6.02	6.23	9.71
												7273.01 AVG
	AVG,	0.00	46.39	27.27	22.26	18.93	15.95	13.82	12.82	12.44	12.13	11.64

TABLE B-47

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0,00 LAMDA = 60,00

Y PARAMETER LT-DBT — X PARAMETER RANGE

TAPE NO. 1

Y		100,00	400,00	900,00	1600,00	2500,00	3600,00	4900,00	6400,00	8100,00	10000,00	LIMIT
0,50	NE,	0	0	0	0	6	4	7	10	11	11	17
	PCT,	0,00	0,00	0,00	0,00	0,00	0,03	0,06	0,08	0,09	0,09	0.15
	DT,	0,00	0,00	0,00	0,00	0,00	1,00	1,00	1,00	1,00	1,00	1.12
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0.47
												9864,90 AVG
2,80	NE,	0	0	0	0	8	30	57	82	99	108	134
	PCT,	0,00	0,00	0,00	0,00	0,08	0,29	0,53	0,82	0,99	1,12	1,90
	DT,	0,00	0,00	0,00	0,00	1,25	1,20	1,18	1,26	1,25	1,30	1,78
	STD,	0,00	0,00	0,00	0,00	0,66	0,54	0,46	0,73	0,76	0,78	2,45
												12150,63 AVG
4,50	NE,	0	0	0	6	35	92	157	214	254	269	302
	PCT,	0,00	0,00	0,00	0,05	0,37	1,17	2,24	3,51	4,37	4,79	6,28
	DT,	0,00	0,00	0,00	1,00	1,31	1,50	1,79	2,66	2,15	2,23	2,61
	STD,	0,00	0,00	0,00	0,00	0,92	1,07	1,45	1,72	1,89	2,01	3,09
												9171,10 AVG
8,00	NE,	0	0	1	18	72	164	243	312	360	386	441
	PCT,	0,00	0,00	0,01	0,17	0,81	2,53	4,80	7,21	9,04	10,12	12,64
	DT,	0,00	0,00	1,00	1,17	1,42	1,92	2,47	2,89	3,15	3,28	3,59
	STD,	0,00	0,00	0,00	0,58	0,81	1,73	2,59	3,13	3,40	3,58	4,83
												[illegible] AVG
12,50	NE,	0	0	3	30	110	225	311	367	400	428	476
	PCT,	0,00	0,00	0,03	0,30	1,40	3,89	6,98	10,18	12,61	14,17	17,68
	DT,	0,00	0,00	1,33	1,23	1,59	2,17	2,81	3,45	3,89	4,14	4,65
	STD,	0,00	0,00	0,47	0,56	1,80	1,94	2,71	3,48	3,81	4,08	5,26
												7662,26 AVG
18,00	NE,	0	0	6	45	150	265	339	378	407	421	451
	PCT,	0,00	0,00	0,06	0,51	2,04	5,07	8,58	12,81	14,74	16,47	20,26
	DT,	0,00	0,00	1,17	1,42	1,71	2,45	3,17	3,98	4,94	4,90	5,63
	STD,	0,00	0,00	0,37	0,86	1,21	2,16	3,81	3,73	4,14	4,33	6,27
												7358,19 AVG
24,50	NE,	0	0	7	64	176	288	356	392	415	425	449
	PCT,	0,00	0,00	0,06	0,74	2,62	5,83	9,54	13,10	15,91	17,69	21,56
	DT,	0,00	0,00	1,14	1,45	1,86	2,53	3,36	4,19	4,80	5,21	6,82
	STD,	0,00	0,00	0,35	0,85	1,26	2,28	3,88	3,81	4,24	4,47	6,44
												7158,98 AVG
32,00	NE,	0	0	14	87	208	316	368	398	422	429	452
	PCT,	0,00	0,00	0,13	0,99	3,18	6,62	10,42	14,04	16,98	18,70	22,60
	DT,	0,00	0,00	1,14	1,43	1,92	2,62	3,55	4,42	5,02	5,46	6,27
	STD,	0,00	0,00	0,35	0,80	1,27	2,19	3,12	3,90	4,32	4,63	6,54
												5977,33 AVG
40,50	NE,	0	0	19	103	222	323	358	388	409	417	438
	PCT,	0,00	0,00	0,18	1,24	3,59	7,21	11,08	14,78	17,69	19,51	23,42
	DT,	0,00	0,00	1,21	1,50	2,03	2,80	3,88	4,77	5,32	5,86	6,70
	STD,	0,00	0,00	0,41	0,91	1,37	2,33	3,31	4,05	4,46	4,76	6,67
												6843,57 AVG
50,00	NE,	0	1	28	117	238	326	355	382	401	409	429
	PCT,	0,00	0,01	0,27	1,44	3,95	7,61	11,52	15,24	18,18	20,01	23,94
	DT,	0,00	1,00	1,21	1,55	2,08	2,92	4,06	5,00	5,68	6,13	6,99
	STD,	0,00	0,00	0,41	0,97	1,41	2,36	3,36	4,11	4,54	4,86	6,82
												6754,47 AVG
LIMIT	NE,	1	14	98	191	279	322	339	357	376	374	391
	PCT,	0,01	0,11	0,81	2,44	5,24	8,98	12,95	16,75	19,75	21,62	25,57
	DT,	1,00	1,00	1,13	1,60	2,35	3,49	4,79	5,88	6,69	7,24	8,19
	STD,	0,00	0,00	0,37	0,89	1,52	2,56	3,52	4.42	5,07	5,37	7,56
												6468,38 AVG
	AVG,	102,83	108,65	81,12	54,07	37,42	27,19	21,94	19,18	17,66	16,99	15,46

TABLE B-48

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0,00 LAMDA = 60,00

* PARAMETER LT-DST X PARAMETER RANGE

TAPE NO. 1

		100,00	400,00	900,00	1600,00	2500,00	3600,00	4900,00	6400,00	8100,00	10000,00	LIMIT
0,50	NO,	0	0	0	0	2	18	22	41	45	48	71
	PCT,	0,00	0,00	0,00	0,00	0,02	0,08	0,18	0,34	0,37	0,39	0,61
	ET,	0,00	0,00	0,00	0,00	1,00	1,00	1,05	1,02	1,02	1,02	1,07
	STD,	0,00	0,00	0,00	0,00	0,00	0,00	0,21	0,15	0,15	0,14	0,31
												9981,69 AVG
2,00	NO,	0	0	0	9	34	106	203	303	362	400	512
	PCT,	0,00	0,00	0,00	0,07	0,30	0,95	2,08	3,55	4,33	4,86	7,57
	ET,	0,00	0,00	0,00	1,00	1,09	1,12	1,29	1,47	1,50	1,52	1,85
	STD,	0,00	0,00	0,00	0,00	0,37	0,41	0,66	1,22	1,24	1,27	2,09
												11184,87 AVG
4,50	NO,	0	0	5	37	136	320	528	708	846	920	1084
	PCT,	0,00	0,00	0,04	0,33	1,34	4,00	8,06	13,08	16,47	18,65	25,57
	ET,	0,00	0,00	1,00	1,11	1,24	1,57	1,91	2,31	2,44	2,54	2,96
	STD,	0,00	0,00	0,00	0,39	0,67	1,03	1,53	2,19	2,40	2,54	3,75
												9167,12 AVG
8,00	NO,	0	0	15	98	272	529	756	946	1084	1163	1331
	PCT,	0,00	0,00	0,12	0,96	3,22	8,91	16,82	25,97	33,73	38,45	50,33
	ET,	0,00	0,00	1,00	1,22	1,49	2,11	2,79	3,44	3,98	4,14	4,74
	STD,	0,00	0,00	0,00	0,63	0,91	1,82	2,87	3,76	4,36	4,53	6,38
												8275,56 AVG
12,50	NO,	0	1	29	179	427	692	866	981	1058	1125	1209
	PCT,	0,03	0,01	0,27	1,93	6,10	14,22	24,89	36,71	46,98	53,65	69,31
	ET,	0,00	1,00	1,17	1,35	1,79	2,61	3,60	4,69	5,56	5,98	7,18
	STD,	0,00	0,00	0,59	0,92	1,21	2,31	3,84	5,12	6,12	6,54	8,58
												7861,02 AVG
18,00	NO,	0	2	65	258	538	763	899	954	971	997	1019
	PCT,	0,00	0,02	0,59	3,32	9,30	19,94	31,21	44,30	55,68	63,24	80,63
	ET,	0,00	1,00	1,14	1,61	2,17	3,13	4,35	5,82	7,19	7,95	9,91
	STD,	0,00	0,00	0,49	1,33	1,80	2,93	4,59	6,24	7,52	8,18	11,20
												7548,06 AVG
24,50	NO,	0	3	90	333	571	771	864	888	879	889	875
	PCT,	0,00	0,03	0,86	4,70	11,85	22,38	35,12	48,71	60,55	68,39	86,50
	ET,	0,00	1,33	1,20	1,77	2,60	3,64	5,09	6,87	8,63	9,64	12,39
	STD,	0,00	0,47	0,64	1,51	2,31	3,79	5,72	7,88	9,62	10,35	13,75
												7343,07 AVG
32,00	NO,	0	7	123	369	587	733	793	792	768	766	731
	PCT,	0,00	0,07	1,26	5,87	13,80	24,86	37,99	51,89	63,95	71,90	90,42
	ET,	0,00	1,29	1,28	1,99	2,95	4,25	6,00	8,21	10,43	11,76	15,50
	STD,	0,00	0,45	0,69	1,70	2,69	4,42	7,00	10,23	12,54	13,46	17,04
												7204,95 AVG
40,50	NO,	0	14	140	380	572	691	724	717	674	661	609
	PCT,	0,00	0,13	1,60	6,75	15,07	26,49	39,78	53,89	66,12	74,20	93,05
	ET,	0,00	1,14	1,44	2,23	3,30	4,80	6,88	9,42	12,29	14,07	19,14
	STD,	0,00	0,55	0,68	1,94	3,15	5,33	8,01	11,51	14,50	15,59	19,58
												7132,47 AVG
50,05	NO,	0	19	158	372	542	635	651	634	582	566	497
	PCT,	0,00	0,17	1,93	7,41	16,06	27,66	41,07	55,29	67,61	75,74	94,84
	ET,	0,00	1,11	1,53	2,50	3,71	5,46	7,90	10,93	14,55	16,77	23,91
	STD,	0,00	0,32	0,99	2,15	3,54	5,65	8,93	13,83	17,38	18,77	24,32
												7077,39 AVG
LIMIT	NO,	2	46	282	317	359	363	345	294	214	173	1
	PCT,	0,02	0,46	3,28	9,59	18,63	30,51	44,43	58,99	71,63	79,94	100,00
	ET,	1,00	1,20	2,03	3,79	6,57	10,63	16,14	25,14	41,94	57,90	12530,00
	STD,	0,00	0,53	1,35	2,96	5,10	9,08	15,76	28,46	45,15	55,13	0,00
												6945,92 AVG
	AVG,	124,01	72,41	52,73	36,21	27,65	22,32	18,30	16,20	15,15	14,64	14,10

TABLE B-49

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 225.00 LAMDA = 0.00

Y PARAMETER GEES.F — X PARAMETER LAM.F

TAPE NO. 1

Y		18.00	36.00	54.00	72.00	90.00	108.00	126.00	144.00	162.00	180.00	LIMIT
1.0C	NO.	137	175	190	213	232	255	283	295	328	315	315
	PCT.	2.84	3.81	4.73	5.99	7.21	8.56	10.09	11.74	13.19	13.66	13.66
	DT.	2.60	2.73	3.12	3.52	3.89	4.21	4.47	4.99	5.15	5.43	5.43
	STD.	3.27	3.58	3.87	4.38	4.78	5.11	5.73	6.45	6.63	6.83	6.83
												80.66 AVG
2.0C	NO.	221	262	305	335	387	417	459	462	477	463	463
	PCT.	7.20	9.65	12.13	15.12	18.42	21.72	24.65	27.31	29.68	30.43	30.43
	DT.	4.08	4.61	4.98	5.65	5.96	6.53	6.36	7.41	7.90	8.24	8.24
	STD.	8.11	8.59	8.51	9.25	9.24	9.58	10.31	10.78	11.11	11.46	11.46
												72.21 AVG
3.0C	NO.	267	333	385	425	494	513	543	558	542	520	520
	PCT.	10.73	14.89	19.87	23.79	29.48	34.96	39.47	43.53	47.86	48.18	48.18
	DT.	5.04	5.60	6.21	7.01	7.48	8.54	9.11	9.92	10.98	11.61	11.61
	STD.	7.91	8.36	8.49	9.40	9.96	10.94	11.82	12.55	14.11	14.81	14.81
												72.19 AVG
4.0C	NO.	277	345	401	439	493	495	520	522	491	438	438
	PCT.	13.98	20.26	26.14	32.66	40.18	47.01	52.98	58.62	63.23	64.80	64.80
	DT.	6.32	7.36	8.17	9.32	10.19	11.90	12.77	14.07	16.47	18.54	18.54
	STD.	8.17	8.66	8.97	10.36	11.37	13.19	14.95	17.21	21.17	24.62	24.62
												71.87 AVG
5.0C	NO.	299	361	395	442	471	477	491	470	495	325	325
	PCT.	16.29	24.62	32.55	40.61	49.61	57.94	65.59	72.93	78.37	80.97	80.97
	DT.	6.83	8.55	10.33	11.51	13.20	15.22	16.74	19.44	24.43	31.22	31.22
	STD.	7.98	8.48	8.94	11.05	13.33	16.05	18.69	22.95	31.39	41.25	41.25
												72.96 AVG
6.0C	NO.	314	380	415	451	421	413	401	356	292	141	141
	PCT.	17.40	27.18	36.70	46.55	57.08	66.96	76.29	85.15	92.07	94.45	94.45
	DT.	6.94	8.96	11.08	12.93	16.99	20.31	23.84	29.97	45.78	83.94	83.94
	STD.	7.93	8.41	9.04	10.95	13.95	17.55	23.29	30.95	49.19	107.70	107.70
												74.33 AVG
7.0C	NO.	317	378	408	439	399	383	364	251	173	51	51
	PCT.	17.68	27.79	37.69	47.95	58.88	69.23	79.27	88.79	95.35	98.48	98.48
	DT.	6.99	9.21	11.58	13.69	18.49	22.65	27.29	38.23	69.49	241.94	241.94
	STD.	7.98	8.46	9.06	11.11	14.01	18.21	25.92	39.84	71.35	286.36	286.36
												75.00 AVG
8.0C	NO.	316	375	404	435	393	376	349	271	147	22	22
	PCT.	17.76	27.92	37.92	48.38	59.45	69.99	80.18	89.86	97.11	99.66	99.66
	DT.	7.04	9.33	11.76	13.94	18.95	23.32	28.79	41.55	82.78	567.59	567.59
	STD.	8.00	8.49	9.14	11.27	15.21	18.81	27.13	43.82	82.50	390.87	390.87
												75.17 AVG
9.0C	NO.	316	375	404	435	393	375	346	265	139	11	11
	PCT.	17.76	27.92	37.93	48.40	59.50	70.07	80.30	90.06	97.36	99.92	99.92
	DT.	7.04	9.33	11.76	13.94	18.97	23.41	29.08	42.58	87.76	1138.18	1138.18
	STD.	8.00	8.49	9.14	11.27	15.21	18.82	27.32	44.54	84.31	798.41	798.41
												75.29 AVG
10.0C	NO.	316	375	404	435	393	375	346	265	139	11	11
	PCT.	17.76	27.92	37.93	48.40	59.50	70.07	80.30	90.06	97.36	99.92	99.92
	DT.	7.04	9.33	11.76	13.94	18.97	23.41	29.08	42.58	87.76	1138.18	1138.18
	STD.	8.00	8.49	9.14	11.27	15.21	18.82	27.32	44.54	84.31	798.41	798.41
												75.29 AVG
LIMIT	NO.	316	375	404	435	393	375	346	265	139	11	11
	PCT.	17.76	27.92	37.93	48.40	59.50	70.07	80.30	90.06	97.36	99.92	99.92
	DT.	7.04	9.33	11.76	13.94	18.97	23.41	29.08	42.58	87.76	1138.18	1138.18
	STD.	8.00	8.49	9.14	11.27	15.21	18.82	27.32	44.54	84.31	798.41	798.41
												75.29 AVG
	AVG.	2.65	2.92	3.05	3.11	3.12	3.13	3.16	3.19	3.19	3.19	3.19

TABLE B–50

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMB T 15.00

Y PARAMETER LT-PGT X PARAMETER RANGE

TAPE NO. 1

		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	[illegible]	[illegible]	0	0	1	2	4	7	8	8	8
	PCT.	[illegible]	[illegible]	0.00	0.00	0.01	0.02	0.03	0.06	0.06	0.06	0.06
	WT.	[illegible]	[illegible]	[illegible]	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												4789.34 AVG
2.00	NO.	[illegible]	[illegible]	0	2	5	18	21	29	34	36	39
	PCT.	[illegible]	[illegible]	[illegible]	0.02	0.04	0.15	0.19	0.26	0.30	0.33	0.35
	WT.	[illegible]	[illegible]	[illegible]	1.00	1.00	1.06	1.14	1.14	1.12	1.14	1.13
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.23	0.47	0.43	0.40	0.42	0.40
												5014.42 AVG
4.50	NO.	[illegible]	[illegible]	1	9	22	41	54	69	77	80	83
	PCT.	[illegible]	[illegible]	0.31	0.07	0.19	0.42	0.67	0.86	0.99	1.05	1.16
	WT.	[illegible]	[illegible]	1.00	1.00	1.09	1.29	1.56	1.57	1.61	1.64	1.75
	STD.	[illegible]	[illegible]	0.00	0.00	0.29	0.63	0.83	0.88	0.93	0.94	1.17
												5219.25 AVG
8.00	NO.	[illegible]	[illegible]	5	18	35	77	97	112	123	131	133
	PCT.	[illegible]	[illegible]	0.74	0.15	0.37	0.87	1.40	1.85	2.19	2.39	2.54
	WT.	[illegible]	[illegible]	1.00	1.06	1.31	1.42	1.81	2.07	2.23	2.28	2.39
	STD.	[illegible]	[illegible]	[illegible]	0.23	0.57	0.76	1.11	1.33	1.51	1.59	1.73
												5161.94 AVG
12.50	NO.	[illegible]	[illegible]	6	27	50	86	104	117	131	140	143
	PCT.	[illegible]	[illegible]	0.95	0.22	0.55	1.16	1.87	2.55	3.15	3.46	3.62
	WT.	[illegible]	[illegible]	1.00	1.04	1.38	1.69	2.25	2.73	3.02	3.09	3.17
	STD.	[illegible]	[illegible]	0.00	0.19	0.53	0.85	1.28	1.60	1.78	1.92	2.02
												5218.99 AVG
18.00	NO.	[illegible]	[illegible]	6	31	56	92	108	119	131	135	139
	PCT.	[illegible]	[illegible]	0.16	0.26	0.53	1.29	2.04	2.77	3.54	3.97	4.14
	WT.	[illegible]	[illegible]	1.00	1.06	1.41	1.76	2.37	2.92	3.38	3.48	3.73
	STD.	[illegible]	[illegible]	0.00	0.25	0.55	0.88	1.29	1.67	1.97	2.04	2.13
												5326.48 AVG
24.50	NO.	[illegible]	[illegible]	6	31	58	94	109	121	134	137	141
	PCT.	[illegible]	[illegible]	[illegible]	0.26	0.55	1.32	2.08	2.83	3.41	4.04	4.21
	WT.	[illegible]	[illegible]	1.00	1.06	1.40	1.77	2.39	2.93	3.37	3.69	3.74
	STD.	[illegible]	[illegible]	[illegible]	0.25	0.54	0.87	1.27	1.69	1.90	2.06	2.15
												5312.06 AVG
32.00	NO.	[illegible]	[illegible]	10	32	60	96	111	123	136	139	144
	PCT.	[illegible]	[illegible]	[illegible]	0.28	0.57	1.35	2.11	2.87	3.66	4.09	4.27
	WT.	[illegible]	[illegible]	1.00	1.09	1.40	1.76	2.39	2.93	3.37	3.68	3.72
	STD.	[illegible]	[illegible]	0.00	0.29	0.56	0.87	1.27	1.69	1.90	2.05	2.15
												5301.32 AVG
40.50	NO.	[illegible]	[illegible]	10	33	51	99	114	127	141	144	149
	PCT.	[illegible]	[illegible]	[illegible]	0.29	0.58	1.37	2.15	2.91	3.70	4.13	4.32
	WT.	[illegible]	[illegible]	1.00	1.09	1.39	1.74	2.36	2.87	3.79	3.60	3.63
	STD.	[illegible]	[illegible]	[illegible]	0.29	0.56	0.87	1.27	1.69	1.91	2.07	2.17
												5289.76 AVG
50.00	NO.	[illegible]	[illegible]	10	33	53	102	117	130	144	148	153
	PCT.	[illegible]	[illegible]	[illegible]	0.29	0.59	1.40	2.17	2.94	3.73	4.17	4.35
	WT.	[illegible]	[illegible]	1.00	1.09	1.36	1.72	2.32	2.83	3.74	3.53	3.56
	STD.	[illegible]	[illegible]	0.00	0.29	0.55	0.87	1.27	1.70	1.92	2.09	2.18
												5282.85 AVG
LIMIT	NO.	[illegible]	[illegible]	10	33	53	102	117	130	144	148	153
	PCT.	[illegible]	[illegible]	[illegible]	0.29	0.59	1.40	2.17	2.94	3.74	4.17	4.36
	WT.	[illegible]	[illegible]	1.00	1.09	1.38	1.72	2.32	2.84	3.75	3.53	3.57
	STD.	[illegible]	[illegible]	[illegible]	0.29	0.55	0.87	1.27	1.70	1.92	2.09	2.18
												5283.41 AVG
	AVG.	[illegible]	[illegible]	[illegible]	[illegible]	9.57	8.62	8.02	8.10	8.34	8.46	8.34

TABLE B-51

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMB T 36.00

Y PARAMETER LT-DOT — X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	100.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.5	NB.	[illegible]	0	0	0	1	2	2	4	4	4	4
	PCT.	[illegible]	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.03	0.03
	DT.	[illegible]	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												4884.82 AVG
2.0	NB.	[illegible]	0	0	0	3	14	18	22	23	23	25
	PCT.	[illegible]	0.00	0.00	0.00	0.02	0.14	0.22	0.27	0.31	0.31	0.34
	DT.	[illegible]	0.00	0.00	0.00	1.00	1.29	1.50	1.55	1.70	1.70	1.68
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.59	1.01	1.23	1.23	1.23	1.19
												5852.82 AVG
4.5	NB.	[illegible]	0	1	4	13	30	44	48	56	60	68
	PCT.	[illegible]	0.00	0.01	0.04	0.13	0.38	0.65	0.82	0.37	1.00	1.25
	DT.	[illegible]	0.00	1.00	1.25	1.23	1.40	1.84	2.35	2.18	2.25	2.31
	STD.	[illegible]	0.00	0.00	0.43	0.42	0.99	1.28	1.55	1.56	1.59	1.83
												5932.65 AVG
8.0	NB.	[illegible]	[illegible]	1	13	33	54	76	92	110	123	134
	PCT.	[illegible]	0.00	0.01	0.11	0.33	0.76	1.25	1.71	2.19	2.51	2.88
	DT.	[illegible]	0.00	1.00	1.98	1.24	1.76	2.05	2.33	2.50	2.56	2.69
	STD.	[illegible]	0.00	0.00	0.27	0.50	1.12	1.57	1.80	1.38	2.02	2.12
												6108.29 AVG
12.5	NB.	[illegible]	0	3	30	41	96	121	142	165	194	209
	PCT.	[illegible]	0.00	0.02	0.25	0.51	1.16	1.86	2.51	3.20	3.77	4.29
	DT.	[illegible]	0.00	1.00	1.03	1.26	1.69	1.93	2.21	2.43	2.43	2.57
	STD.	[illegible]	0.00	0.00	0.18	0.54	1.06	1.44	1.77	1.99	1.98	2.04
												6105.68 AVG
16.0	NB.	[illegible]	[illegible]	9	43	78	108	145	168	182	236	260
	PCT.	[illegible]	0.00	0.07	0.35	0.31	1.43	2.18	2.92	3.64	4.36	5.08
	DT.	[illegible]	0.00	1.00	1.10	1.29	1.66	1.88	2.18	2.38	2.31	2.45
	STD.	[illegible]	0.00	0.00	0.33	0.58	1.02	1.38	1.67	1.86	1.86	1.96
												6144.52 AVG
24.5	NB.	[illegible]	[illegible]	16	52	95	130	164	188	211	257	281
	PCT.	[illegible]	0.00	0.13	0.45	0.95	1.64	2.41	3.18	3.99	4.64	5.37
	DT.	[illegible]	0.00	1.00	1.08	1.25	1.58	1.84	2.12	2.31	2.26	2.40
	STD.	[illegible]	0.00	0.00	0.27	0.54	0.97	1.35	1.63	1.83	1.83	1.93
												5985.72 AVG
32.0	NB.	[illegible]	[illegible]	17	57	103	139	175	199	221	267	291
	PCT.	[illegible]	0.00	0.14	0.49	1.04	1.74	2.54	3.32	4.04	4.79	5.51
	DT.	[illegible]	0.00	1.00	1.07	1.26	1.57	1.82	2.09	2.29	2.25	2.37
	STD.	[illegible]	0.00	0.00	0.26	0.54	0.94	1.31	1.60	1.38	1.80	1.91
												5899.83 AVG
40.5	NB.	[illegible]	[illegible]	18	58	106	143	179	203	224	278	294
	PCT.	[illegible]	0.00	0.14	0.49	1.07	1.78	2.59	3.38	4.10	4.85	5.59
	DT.	[illegible]	0.00	1.00	1.07	1.26	1.56	1.82	2.09	2.29	2.25	2.38
	STD.	[illegible]	0.00	0.00	0.25	0.54	0.94	1.30	1.59	1.79	1.79	1.98
												5875.16 AVG
50.0	NB.	[illegible]	1	19	59	109	144	180	204	225	271	295
	PCT.	[illegible]	0.00	0.15	0.50	1.09	1.80	2.62	3.41	4.13	4.88	5.42
	DT.	[illegible]	1.00	1.00	1.07	1.26	1.57	1.82	2.09	2.30	2.25	2.39
	STD.	[illegible]	0.00	0.00	0.25	0.53	0.93	1.30	1.58	1.79	1.79	1.89
												5871.19 AVG
LIMIT	NB.	[illegible]	[illegible]	19	59	109	145	181	205	228	274	299
	PCT.	[illegible]	0.00	0.15	0.50	1.09	1.84	2.65	3.45	4.18	4.93	5.78
	DT.	[illegible]	1.00	1.00	1.07	1.26	1.59	1.83	2.11	2.30	2.26	2.39
	STD.	[illegible]	0.00	0.00	0.25	0.53	0.94	1.30	1.58	1.78	1.78	1.98
												5887.11 AVG
	AVG.	[illegible]	43.6	20.11	15.00	14.96	13.17	11.56	11.08	10.43	10.44	10.54

TABLE B-52

PARAMETER INTERACTION REF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMP T 54.00

Y PARAMETER LIMIT | X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	[illegible]	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT	
0.0	NO.	[illegible]	[illegible]	0	0	0	0	1	3	5	5	6	
	PCT.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.04	0.05	
	OT.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6529.72 AVG
2.0	NO.	[illegible]	[illegible]	0	0	3	10	19	29	34	38	42	
	PCT.	[illegible]	[illegible]	0.00	0.00	0.02	0.08	0.20	0.39	0.48	0.53	0.61	
	OT.	[illegible]	[illegible]	0.00	0.00	1.00	1.00	1.32	1.69	1.76	1.74	1.83	
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.57	1.09	1.11	1.14	1.19	6736.38 AVG
4.0	NO.	[illegible]	[illegible]	0	1	10	28	53	65	76	82	98	
	PCT.	[illegible]	[illegible]	0.00	0.01	0.09	0.33	0.73	1.22	1.53	1.74	1.97	
	OT.	[illegible]	[illegible]	0.00	1.00	1.10	1.46	1.72	2.35	2.53	2.66	2.74	
	STD.	[illegible]	[illegible]	0.00	0.00	0.30	0.43	0.90	1.72	1.31	2.12	2.18	6495.46 AVG
8.0	NO.	[illegible]	[illegible]	2	5	25	46	76	92	109	127	145	
	PCT.	[illegible]	[illegible]	0.02	0.05	0.24	0.46	1.34	2.10	2.71	3.20	3.67	
	OT.	[illegible]	[illegible]	1.00	1.20	1.20	1.80	2.21	2.86	3.12	3.16	3.17	
	STD.	[illegible]	[illegible]	0.00	0.40	0.53	0.72	1.30	2.08	2.27	2.44	2.47	6638.40 AVG
12.5	NO.	[illegible]	[illegible]	3	15	44	73	103	122	147	173	206	
	PCT.	[illegible]	[illegible]	0.02	0.14	0.51	1.15	1.92	2.81	3.55	4.27	5.12	
	OT.	[illegible]	[illegible]	1.00	1.20	1.45	1.97	2.33	2.89	3.03	3.09	3.11	
	STD.	[illegible]	[illegible]	0.00	0.40	0.72	0.98	1.48	2.17	2.35	2.42	2.53	6637.76 AVG
18.0	NO.	[illegible]	[illegible]	10	34	59	98	128	150	177	205	259	
	PCT.	[illegible]	[illegible]	0.08	0.32	0.56	1.50	2.31	3.26	4.08	4.84	5.91	
	OT.	[illegible]	[illegible]	1.00	1.18	1.45	1.92	2.26	2.72	2.89	2.96	2.86	
	STD.	[illegible]	[illegible]	0.00	0.38	0.73	1.15	1.59	2.18	2.41	2.49	2.51	6542.01 AVG
24.0	NO.	[illegible]	[illegible]	13	45	82	114	146	168	197	225	282	
	PCT.	[illegible]	[illegible]	0.11	0.41	0.92	1.65	2.48	3.43	4.29	5.09	6.24	
	OT.	[illegible]	[illegible]	1.00	1.13	1.40	1.82	2.13	2.56	2.73	2.84	2.77	
	STD.	[illegible]	[illegible]	0.00	0.34	0.70	1.11	1.54	2.12	2.36	2.44	2.45	6504.11 AVG
32.0	NO.	[illegible]	[illegible]	16	50	90	123	156	181	209	238	297	
	PCT.	[illegible]	[illegible]	0.13	0.45	0.99	1.74	2.59	3.58	4.44	5.27	6.43	
	OT.	[illegible]	[illegible]	1.00	1.14	1.38	1.77	2.08	2.48	2.66	2.77	2.71	
	STD.	[illegible]	[illegible]	0.00	0.35	0.59	1.10	1.51	2.09	2.33	2.41	2.43	6447.03 AVG
40.0	NO.	[illegible]	1	19	54	94	128	161	188	216	247	306	
	PCT.	[illegible]	0.01	0.15	0.49	1.03	1.79	2.65	3.66	4.52	5.36	6.54	
	OT.	[illegible]	1.00	1.00	1.15	1.37	1.75	2.06	2.44	2.62	2.72	2.68	
	STD.	[illegible]	0.00	0.00	0.36	0.58	1.09	1.50	2.07	2.30	2.38	2.41	6415.91 AVG
50.0	NO.	[illegible]	1	19	54	94	128	161	189	217	248	308	
	PCT.	[illegible]	0.01	0.15	0.49	1.03	1.80	2.66	3.67	4.53	5.38	6.56	
	OT.	[illegible]	1.00	1.00	1.15	1.37	1.76	2.07	2.43	2.62	2.72	2.67	
	STD.	[illegible]	0.00	0.00	0.36	0.58	1.09	1.50	2.06	2.30	2.38	2.40	6416.83 AVG
LIMIT	NO.	[illegible]	1	19	54	95	129	162	190	218	249	308	
	PCT.	[illegible]	0.01	0.15	0.49	1.05	1.81	2.67	3.69	4.56	5.40	6.61	
	OT.	[illegible]	1.00	1.00	1.15	1.38	1.76	2.07	2.43	2.62	2.72	2.69	
	STD.	[illegible]	0.00	0.00	0.36	0.68	1.08	1.50	2.06	2.29	2.37	2.41	6458.02 AVG
	AVG.	[illegible]	37.40	23.40	17.46	14.54	12.12	10.30	9.34	8.39	8.94	9.35	

TABLE B-53

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMP T 72.00

Y PARAMETER LT-DST — X PARAMETER RANGE

TAPE NO. 1

Y		1[illegible].0	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	[illegible]	0	0	0	0	1	1	2	2	2	2
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02
	DT.	[illegible]	0.00	0.00	0.00	0.00	1.00	2.00	1.50	1.50	1.50	1.50
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.50	0.50	0.50
												4379.99 AVG
2.00	NO.	[illegible]	0	0	1	3	8	18	26	28	29	35
	PCT.	[illegible]	0.00	0.00	0.01	0.02	0.06	0.20	0.29	0.32	0.33	0.42
	DT.	[illegible]	0.00	0.30	1.00	1.00	1.00	1.39	1.38	1.43	1.41	1.51
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.83	0.79	0.32	0.81	0.87
												9018.88 AVG
4.50	NO.	[illegible]	0	0	4	14	34	45	56	71	88	93
	PCT.	[illegible]	0.00	0.00	0.03	0.14	0.39	0.66	0.96	1.21	1.36	1.65
	DT.	[illegible]	0.00	0.00	1.00	1.21	1.44	1.84	2.14	2.14	2.13	2.23
	STD.	[illegible]	0.00	0.00	0.00	0.56	0.69	1.38	1.68	1.72	1.76	1.81
												7514.68 AVG
8.00	NO.	[illegible]	0	0	9	22	49	73	95	121	141	162
	PCT.	[illegible]	0.00	0.00	0.07	0.26	0.75	1.30	1.84	2.30	2.70	3.33
	DT.	[illegible]	0.00	0.00	1.00	1.50	1.92	2.23	2.42	2.38	2.40	2.57
	STD.	[illegible]	0.00	0.00	0.00	0.72	1.07	1.55	2.00	1.36	2.00	2.31
												7322.86 AVG
12.50	NO.	[illegible]	0	0	14	38	69	102	128	158	187	227
	PCT.	[illegible]	0.00	0.00	0.12	0.46	1.13	1.67	2.64	3.22	3.76	4.74
	DT.	[illegible]	0.00	0.00	1.07	1.53	2.06	2.29	2.59	2.55	2.52	2.62
	STD.	[illegible]	0.00	0.00	0.26	0.75	1.20	1.51	1.91	1.30	1.96	2.18
												7242.81 AVG
18.00	NO.	[illegible]	0	3	22	55	93	126	151	190	213	262
	PCT.	[illegible]	0.00	0.02	0.21	0.65	1.41	2.26	3.11	3.74	4.34	5.47
	DT.	[illegible]	0.00	1.00	1.18	1.47	1.90	2.25	2.58	2.41	2.55	2.62
	STD.	[illegible]	0.00	0.00	0.39	0.78	1.20	1.48	1.94	2.03	2.06	2.20
												7895.17 AVG
24.50	NO.	[illegible]	0	7	32	72	112	144	170	202	234	288
	PCT.	[illegible]	0.00	0.06	0.30	0.81	1.60	2.47	3.34	4.04	4.65	5.84
	DT.	[illegible]	0.00	1.00	1.18	1.40	1.79	2.15	2.46	2.50	2.49	2.54
	STD.	[illegible]	0.00	0.00	0.44	0.78	1.18	1.53	1.94	2.04	2.07	2.19
												6954.11 AVG
32.00	NO.	[illegible]	0	9	35	78	121	153	178	208	240	295
	PCT.	[illegible]	0.00	0.07	0.32	0.56	1.70	2.58	3.47	4.17	4.80	6.04
	DT.	[illegible]	0.00	1.00	1.14	1.38	1.76	2.11	2.44	2.51	2.51	2.57
	STD.	[illegible]	0.00	0.00	0.42	0.75	1.15	1.51	1.91	2.03	2.07	2.19
												6911.97 AVG
40.50	NO.	[illegible]	1	14	41	86	131	164	190	222	252	309
	PCT.	[illegible]	0.01	0.11	0.38	0.94	1.80	2.68	3.58	4.31	4.95	6.21
	DT.	[illegible]	1.00	1.00	1.15	1.37	1.72	2.05	2.36	2.43	2.46	2.52
	STD.	[illegible]	0.00	0.00	0.42	0.76	1.13	1.49	1.89	2.01	2.05	2.17
												6855.68 AVG
50.00	NO.	[illegible]	1	14	41	97	133	166	192	223	254	313
	PCT.	[illegible]	0.01	0.11	0.38	0.95	1.81	2.71	3.62	4.36	5.00	6.28
	DT.	[illegible]	1.00	1.00	1.15	1.37	1.71	2.05	2.36	2.45	2.47	2.51
	STD.	[illegible]	0.00	0.00	0.42	0.76	1.13	1.50	1.89	2.01	2.05	2.16
												6852.88 AVG
LIMIT	NO.	[illegible]	2	16	43	99	136	170	197	230	262	323
	PCT.	[illegible]	0.02	0.13	0.39	0.97	1.84	2.76	3.70	4.48	5.15	6.45
	DT.	[illegible]	1.00	1.00	1.14	1.37	1.70	2.04	2.36	2.44	2.46	2.50
	STD.	[illegible]	0.00	0.00	0.41	0.76	1.12	1.49	1.88	1.39	2.03	2.14
												6852.14 AVG
	AVG.	[illegible]	47.22	30.15	19.46	16.81	13.53	12.21	11.78	12.13	11.99	11.84

TABLE B-54

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMP T 90.00

Y PARAMETER LT-DST

X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	0	0	2	2	2	5
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.04
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												10122.07 AVG
2.00	NO.	0	0	0	1	2	4	16	24	28	35	45
	PCT.	0.00	0.00	0.00	0.01	0.02	0.03	0.15	0.27	0.31	0.37	0.49
	DT.	0.00	0.00	0.00	1.00	1.00	1.00	1.19	1.42	1.39	1.31	1.38
	STD.	0.00	0.00	0.00	0.00	0.00	0.06	0.39	1.04	1.14	1.04	1.25
												7786.33 AVG
4.50	NO.	0	0	1	2	8	18	39	60	75	86	111
	PCT.	0.00	0.00	0.01	0.02	0.06	0.18	0.52	0.98	1.25	1.44	2.07
	DT.	0.00	0.00	1.00	1.00	1.00	1.22	1.67	2.05	2.08	2.09	2.33
	STD.	0.00	0.00	0.00	0.00	0.00	0.53	0.92	1.45	1.70	1.63	2.08
												8378.36 AVG
6.00	NO.	0	0	1	7	22	41	73	96	118	132	164
	PCT.	0.00	0.00	0.01	0.06	0.25	0.55	1.11	1.87	2.47	2.77	3.77
	DT.	0.00	0.00	1.00	1.00	1.41	1.68	1.90	2.44	2.62	2.63	2.88
	STD.	0.00	0.00	0.00	0.00	0.65	1.07	1.42	1.82	2.08	2.16	2.89
												7988.72 AVG
12.50	NO.	0	0	2	12	37	62	94	119	144	161	204
	PCT.	0.00	0.00	0.02	0.10	0.43	0.88	1.61	2.51	3.23	3.59	4.84
	DT.	0.00	0.00	1.00	1.08	1.46	1.77	2.15	2.65	2.41	2.80	2.97
	STD.	0.00	0.00	0.00	0.28	0.54	1.11	1.56	2.04	2.39	2.48	3.80
												7688.44 AVG
18.00	NO.	0	0	4	21	52	78	114	141	167	184	226
	PCT.	0.00	0.00	0.03	0.18	0.56	1.10	1.92	2.90	3.66	4.08	5.43
	DT.	0.00	0.00	1.00	1.05	1.44	1.77	2.11	2.57	2.75	2.78	3.01
	STD.	0.00	0.00	0.00	0.21	0.53	1.16	1.63	2.12	2.47	2.57	3.10
												7589.37 AVG
24.50	NO.	0	0	6	30	53	90	125	153	179	199	244
	PCT.	0.00	0.00	0.05	0.25	0.73	1.26	2.10	3.10	3.33	4.38	5.79
	DT.	0.00	0.00	1.00	1.03	1.44	1.76	2.10	2.54	2.75	2.76	2.98
	STD.	0.00	0.00	0.00	0.18	0.51	1.14	1.63	2.17	2.61	2.68	3.13
												7415.61 AVG
32.00	NO.	0	0	10	41	77	103	138	167	191	211	256
	PCT.	0.00	0.00	0.39	0.34	0.86	1.40	2.27	3.29	4.14	4.60	6.07
	DT.	0.00	0.00	1.10	1.35	1.40	1.71	2.06	2.47	2.72	2.73	2.97
	STD.	0.00	0.00	0.30	0.22	0.59	1.11	1.60	2.12	2.56	2.64	3.11
												7329.18 AVG
40.50	NO.	0	0	12	45	81	107	142	173	[illegible]	219	267
	PCT.	0.00	0.00	0.10	0.38	0.90	1.44	2.31	3.37	[illegible]	4.70	6.23
	DT.	0.00	0.00	1.08	1.07	1.40	1.69	2.04	2.44	[illegible]	2.69	2.92
	STD.	0.00	0.00	0.26	0.25	0.58	1.10	1.58	2.09	2.54	2.61	3.07
												7343.94 AVG
50.00	NO.	0	0	12	47	84	112	148	179	203	225	273
	PCT.	0.00	0.00	0.10	0.40	0.93	1.49	2.37	3.43	4.29	4.77	6.31
	DT.	0.00	0.00	1.06	1.06	1.38	1.47	2.01	2.40	2.45	2.66	2.90
	STD.	0.00	0.00	0.28	0.24	0.58	1.03	1.56	2.07	2.51	2.58	3.06
												7334.61 AVG
LIMIT	NO.	0	1	14	51	89	117	153	185	210	232	281
	PCT.	0.00	0.01	0.12	0.43	1.03	1.60	2.51	3.56	4.47	4.96	6.57
	DT.	0.00	1.00	1.37	1.06	1.45	1.71	2.05	2.43	2.67	2.68	2.93
	STD.	0.00	0.00	0.26	0.24	0.54	1.08	1.55	2.06	2.48	2.56	3.05
												7279.39 AVG
	AVG.	[illegible]	53.72	25.43	24.66	21.53	17.53	14.88	12.94	12.49	12.33	12.31

TABLE B-55

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMP T 108.00

TAPE NO. 1

Y PARAMETER LT-DST — X PARAMETER RANGE

Y		[illegible]	[illegible]	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.0	NO.	[illegible]	[illegible]	0	0	0	0	1	1	1	2	3
	PCT.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02
	WT.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
	STD.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												10577.35 AVG
2.0	NO.	[illegible]	[illegible]	0	0	1	1	6	10	11	13	19
	PCT.	[illegible]	[illegible]	[illegible]	0.00	0.02	0.02	0.06	0.11	0.12	0.14	0.22
	WT.	[illegible]	[illegible]	[illegible]	0.00	2.00	2.00	1.33	1.40	1.36	1.31	1.42
	STD.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	0.47	0.66	0.44	0.61	0.82
												10711.83 AVG
4.0	NO.	[illegible]	[illegible]	3	1	7	13	29	40	51	57	70
	PCT.	[illegible]	[illegible]	[illegible]	0.01	0.08	0.16	0.34	0.62	0.76	0.85	1.17
	WT.	[illegible]	[illegible]	[illegible]	1.00	1.43	1.54	1.45	1.95	1.36	1.88	2.09
	STD.	[illegible]	[illegible]	[illegible]	0.00	0.73	0.84	0.85	1.50	1.37	1.34	1.65
												8790.09 AVG
8.0	NO.	[illegible]	[illegible]	1	5	16	31	49	67	88	96	118
	PCT.	[illegible]	[illegible]	0.01	0.06	0.23	0.45	0.85	1.36	1.77	1.96	2.47
	WT.	[illegible]	[illegible]	1.00	1.33	1.81	1.94	2.18	2.55	2.52	2.55	2.63
	STD.	[illegible]	[illegible]	[illegible]	0.47	1.07	1.14	1.37	2.18	2.13	2.10	2.23
												7689.69 AVG
12.0	NO.	[illegible]	[illegible]	[illegible]	14	30	49	77	96	121	132	161
	PCT.	[illegible]	[illegible]	0.02	0.14	0.40	0.71	1.29	1.94	2.49	2.74	3.42
	WT.	[illegible]	[illegible]	1.00	1.21	1.47	1.82	2.10	2.53	2.58	2.60	2.66
	STD.	[illegible]	[illegible]	[illegible]	0.41	1.01	1.21	1.43	2.19	2.17	2.16	2.30
												7651.39 AVG
16.0	NO.	[illegible]	[illegible]	6	23	44	45	93	112	137	149	182
	PCT.	[illegible]	[illegible]	[illegible]	0.23	0.53	0.92	1.55	2.22	2.79	3.06	3.82
	WT.	[illegible]	[illegible]	[illegible]	1.16	1.52	1.77	2.09	2.48	2.55	2.58	2.63
	STD.	[illegible]	[illegible]	[illegible]	0.37	0.59	1.13	1.39	2.09	2.08	2.07	2.22
												7453.51 AVG
24.0	NO.	[illegible]	[illegible]	7	34	53	76	104	122	148	160	193
	PCT.	[illegible]	[illegible]	[illegible]	0.31	0.54	1.05	1.71	2.40	2.38	3.26	4.03
	WT.	[illegible]	[illegible]	[illegible]	1.12	1.51	1.74	2.06	2.47	2.53	2.56	2.62
	STD.	[illegible]	[illegible]	[illegible]	0.35	0.86	1.09	1.36	2.03	2.04	2.03	2.18
												7241.71 AVG
32.0	NO.	[illegible]	[illegible]	[illegible]	45	54	87	116	133	160	172	205
	PCT.	[illegible]	[illegible]	[illegible]	0.41	0.74	1.17	1.83	2.53	3.13	3.41	4.18
	WT.	[illegible]	[illegible]	[illegible]	1.13	1.45	1.68	1.97	2.38	2.45	2.48	2.56
	STD.	[illegible]	[illegible]	[illegible]	0.34	0.53	1.76	1.32	2.00	2.07	2.06	2.21
												7138.30 AVG
40.0	NO.	[illegible]	[illegible]	[illegible]	48	70	94	123	140	147	179	212
	PCT.	[illegible]	[illegible]	[illegible]	0.43	0.79	1.23	1.91	2.61	3.21	3.50	4.29
	WT.	[illegible]	[illegible]	[illegible]	1.23	1.41	1.44	1.94	2.34	2.41	2.45	2.53
	STD.	[illegible]	[illegible]	[illegible]	[illegible]	0.30	1.03	1.31	1.97	2.05	2.04	2.18
												7076.97 AVG
[illegible]	NO.	[illegible]	[illegible]	[illegible]	52	76	120	129	146	173	185	218
	PCT.	[illegible]	[illegible]	[illegible]	0.46	0.84	1.26	1.96	2.67	3.27	3.56	4.37
	WT.	[illegible]	[illegible]	[illegible]	[illegible]	1.38	1.61	1.91	2.29	2.37	2.41	2.51
	STD.	[illegible]	[illegible]	[illegible]	[illegible]	0.76	1.24	1.31	1.95	2.03	2.02	2.17
												7026.45 AVG
LIMIT	NO.	[illegible]	[illegible]	[illegible]	[illegible]	53	110	140	158	145	197	232
	PCT.	[illegible]	[illegible]	[illegible]	[illegible]	0.91	1.35	2.09	2.82	3.43	3.73	4.56
	WT.	[illegible]	[illegible]	[illegible]	[illegible]	1.37	1.57	1.96	2.23	2.32	2.37	2.46
	STD.	[illegible]	[illegible]	[illegible]	[illegible]	0.76	1.21	1.30	1.94	2.01	2.01	2.16
												6970.44 AVG
	[illegible]	[illegible]	[illegible]	[illegible]	23.77	21.55	17.24	16.71	15.05	14.08	13.76	13.24

TABLE B-56

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAME T 126.00

Y PARAMETER RANGE

X PARAMETER RANGE

TAPE NO. 1

		[illegible]	[illegible]	[illegible]	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.0	NO.	[illegible]	[illegible]	0	0	0	0	1	1	1	2	
	PCT.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02
	UT.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
	STD.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												18226.53 AVG
2.0	NO.	[illegible]	[illegible]	0	1	3	4	5	7	10	13	20
	PCT.	[illegible]	[illegible]	[illegible]	0.01	0.02	0.03	0.04	0.06	0.12	0.17	0.26
	UT.	[illegible]	[illegible]	[illegible]	1.00	1.00	1.00	1.00	1.00	1.50	1.62	1.65
	STD.	[illegible]	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.32	0.92	0.85
												17491.38 AVG
4.0	NO.	[illegible]	[illegible]	0	1	4	11	20	30	37	43	60
	PCT.	[illegible]	[illegible]	[illegible]	0.01	0.07	0.15	0.23	0.35	0.49	0.64	0.97
	UT.	[illegible]	[illegible]	[illegible]	1.00	2.25	1.73	1.45	1.47	1.68	1.86	2.03
	STD.	[illegible]	[illegible]	[illegible]	0.00	1.30	1.05	0.86	0.81	1.07	1.27	1.58
												13727.76 AVG
8.0	NO.	[illegible]	[illegible]	0	3	10	21	31	46	62	71	98
	PCT.	[illegible]	[illegible]	[illegible]	0.03	0.16	0.43	0.60	0.90	1.21	1.43	2.07
	UT.	[illegible]	[illegible]	[illegible]	1.33	2.00	2.57	2.42	2.46	2.44	2.52	2.64
	STD.	[illegible]	[illegible]	[illegible]	0.47	1.55	2.40	2.61	2.34	2.20	2.46	2.58
												11573.65 AVG
12.0	NO.	[illegible]	[illegible]	0	7	21	39	50	66	84	96	130
	PCT.	[illegible]	[illegible]	[illegible]	0.06	0.30	0.49	0.94	1.32	1.67	1.96	2.71
	UT.	[illegible]	[illegible]	[illegible]	1.43	1.51	2.23	2.36	2.50	2.49	2.55	2.61
	STD.	[illegible]	[illegible]	[illegible]	0.73	1.26	2.06	2.39	2.28	2.15	2.33	2.43
												10343.02 AVG
16.0	NO.	[illegible]	[illegible]	1	16	36	55	68	84	103	115	151
	PCT.	[illegible]	[illegible]	0.01	0.17	0.47	0.92	1.22	1.64	2.02	2.33	3.14
	UT.	[illegible]	[illegible]	1.00	1.31	1.54	2.09	2.25	2.44	2.46	2.54	2.61
	STD.	[illegible]	[illegible]	[illegible]	0.56	1.33	1.78	2.12	2.21	2.10	2.27	2.63
												9792.35 AVG
24.0	NO.	[illegible]	[illegible]	4	24	44	65	76	95	114	126	162
	PCT.	[illegible]	[illegible]	0.03	0.24	0.57	1.05	1.36	1.81	2.21	2.52	3.38
	UT.	[illegible]	[illegible]	1.00	1.25	1.51	2.32	2.19	2.39	2.43	2.51	2.61
	STD.	[illegible]	[illegible]	[illegible]	0.52	0.96	1.67	2.01	2.10	2.03	2.20	2.58
												9466.67 AVG
32.0	NO.	[illegible]	1	6	33	53	74	87	104	123	135	169
	PCT.	[illegible]	0.01	0.06	0.31	0.65	1.13	1.44	1.90	2.31	2.62	3.50
	UT.	[illegible]	1.00	1.00	1.16	1.53	1.91	2.08	2.79	2.35	2.43	2.59
	STD.	[illegible]	[illegible]	[illegible]	0.46	0.90	1.60	1.93	2.05	1.99	2.16	2.62
												9340.59 AVG
40.0	NO.	[illegible]	2	12	38	59	82	95	112	131	143	177
	PCT.	[illegible]	0.02	[illegible]	0.35	0.71	1.21	1.53	2.00	2.40	2.72	3.62
	UT.	[illegible]	[illegible]	1.00	1.16	1.51	1.84	2.02	2.23	2.30	2.38	2.56
	STD.	[illegible]	[illegible]	[illegible]	0.43	0.93	1.56	1.90	2.02	1.36	2.13	2.58
												9284.24 AVG
50.0	NO.	[illegible]	2	12	39	51	85	98	114	133	145	179
	PCT.	[illegible]	0.02	[illegible]	0.36	0.73	1.24	1.56	2.04	2.47	2.79	3.70
	UT.	[illegible]	[illegible]	[illegible]	1.15	1.49	1.82	2.00	2.25	2.32	2.41	2.59
	STD.	[illegible]	[illegible]	[illegible]	0.43	0.92	1.58	1.91	2.05	1.99	2.15	2.59
												9263.29 AVG
LIMIT	NO.	[illegible]	4	16	46	72	99	113	132	152	164	198
	PCT.	[illegible]	[illegible]	[illegible]	0.43	0.83	1.40	1.73	2.27	2.72	3.05	3.98
	UT.	[illegible]	[illegible]	[illegible]	1.13	1.44	1.77	1.92	2.15	2.24	2.33	2.52
	STD.	[illegible]	[illegible]	[illegible]	0.39	0.96	1.50	1.81	1.98	1.34	2.09	2.53
												8904.20 AVG
	AVG.	[illegible]	46.32	56.41	27.78	23.41	20.52	18.54	18.39	17.42	16.75	15.23

TABLE B-57

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMB T 144.00

Y PARAMETER LT-93T | X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT	
0.5	NO.	[illegible]	0	0	0	0	0	0	0	0	0	3	
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	
	DT.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	
												24278.65	AVG
2.0	NO.	[illegible]	[illegible]	0	0	0	0	1	2	4	6	17	
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.06	0.08	0.34	
	DT.	[illegible]	0.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	1.67	2.47	
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.71	0.75	2.09	
												20592.83	AVG
4.5	NO.	[illegible]	0	0	0	1	4	8	8	13	18	40	
	PCT.	[illegible]	0.00	0.00	0.00	0.02	0.07	0.14	0.20	0.26	0.34	1.13	
	DT.	[illegible]	0.00	0.00	0.00	2.00	2.25	2.25	3.13	2.54	2.39	3.55	
	STD.	[illegible]	0.00	0.00	0.00	0.00	1.64	2.22	2.32	2.02	1.80	3.26	
												17190.70	AVG
8.0	NO.	[illegible]	0	2	4	9	12	22	30	40	45	68	
	PCT.	[illegible]	0.00	0.02	0.04	0.09	0.21	0.35	0.51	0.68	0.81	1.72	
	DT.	[illegible]	0.00	1.00	1.25	1.22	2.17	2.06	2.13	2.13	2.24	3.16	
	STD.	[illegible]	0.00	0.00	0.43	0.42	2.07	1.95	1.86	1.76	1.69	3.40	
												14150.91	AVG
12.5	NO.	[illegible]	0	2	7	15	22	38	46	57	64	89	
	PCT.	[illegible]	0.00	0.04	0.08	0.16	0.32	0.56	0.75	0.83	1.13	2.17	
	DT.	[illegible]	0.00	1.00	1.43	1.33	1.32	1.84	2.04	2.05	2.20	3.06	
	STD.	[illegible]	0.00	0.00	0.73	0.50	1.44	1.60	1.65	1.61	1.61	3.22	
												13177.17	AVG
18.5	NO.	[illegible]	1	12	22	34	46	62	72	85	91	117	
	PCT.	[illegible]	0.01	0.10	0.22	0.37	0.50	0.88	1.09	1.31	1.51	2.60	
	DT.	[illegible]	1.00	1.06	1.23	1.35	1.43	1.77	1.89	1.83	2.08	2.79	
	STD.	[illegible]	0.00	[illegible]	0.67	0.72	1.39	1.51	1.55	1.56	1.74	3.00	
												11752.47	AVG
24.5	NO.	[illegible]	1	15	30	42	55	71	81	94	100	125	
	PCT.	[illegible]	0.01	0.12	0.30	0.47	0.72	1.02	1.23	1.46	1.66	2.77	
	DT.	[illegible]	1.00	1.15	1.27	1.40	1.64	1.80	1.90	1.35	2.08	2.78	
	STD.	[illegible]	0.00	0.53	0.66	0.73	1.30	1.43	1.48	1.49	1.67	2.94	
												11291.31	AVG
32.0	NO.	[illegible]	2	17	40	54	67	82	93	105	111	135	
	PCT.	[illegible]	0.02	0.16	0.42	0.51	0.86	1.19	1.40	1.44	1.84	2.96	
	DT.	[illegible]	1.00	1.18	1.32	1.43	1.44	1.82	1.89	1.36	2.08	2.75	
	STD.	[illegible]	0.00	0.51	0.69	0.76	1.26	1.42	1.46	1.52	1.68	2.88	
												10756.63	AVG
40.5	NO.	[illegible]	2	21	47	52	75	90	101	112	118	144	
	PCT.	[illegible]	0.02	0.19	0.49	0.59	0.95	1.26	1.48	1.72	1.93	3.07	
	DT.	[illegible]	1.00	1.14	1.30	1.39	1.59	1.76	1.83	1.33	2.05	2.67	
	STD.	[illegible]	0.00	0.47	0.65	0.73	1.22	1.36	1.42	1.49	1.64	2.92	
												10670.74	AVG
50.0	NO.	[illegible]	3	24	52	56	82	97	109	119	125	151	
	PCT.	[illegible]	0.02	0.22	0.54	0.75	1.12	1.34	1.56	1.31	2.02	3.16	
	DT.	[illegible]	[illegible]	1.17	1.31	1.36	1.56	1.73	1.80	1.31	2.02	2.42	
	STD.	[illegible]	[illegible]	0.47	0.64	0.71	[illegible]	1.34	1.38	1.47	1.62	2.77	
												10428.58	AVG
LIMIT	NO.	[illegible]	4	28	59	76	90	106	119	131	137	143	
	PCT.	[illegible]	0.03	0.26	0.61	0.82	1.10	1.43	1.66	1.83	2.14	3.30	
	DT.	[illegible]	[illegible]	1.14	1.29	1.36	1.53	1.69	1.75	1.35	1.96	2.54	
	STD.	[illegible]	[illegible]	0.44	[illegible]	0.56	1.14	1.29	1.34	1.42	1.57	2.71	
												10223.31	AVG
	AVG.	[illegible]	[illegible]	[illegible]	29.13	26.04	22.75	20.61	19.11	18.39	17.79	13.87	

TABLE B-58

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMP T 162.00

Y PARAMETER LT-03T | X PARAMETER RANGE

TAPE NO. 1

		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NB.	0	0	0	0	0	0	0	0	0	0	2
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												23457.77 AVG
2.00	NB.	0	0	0	0	0	0	2	3	7	7	20
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.06	0.06	0.34
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	2.10
	STD.	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
												23618.57 AVG
4.50	NB.	0	0	1	1	1	2	5	5	8	8	27
	PCT.	0.00	0.00	0.01	0.01	0.01	0.02	0.12	0.15	0.23	0.23	0.88
	DT.	0.00	0.00	1.00	1.00	1.00	1.00	3.00	3.80	3.63	3.63	4.07
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	2.10	3.06	2.64	2.64	4.69
												18193.42 AVG
8.00	NB.	0	0	1	1	2	4	8	10	12	12	30
	PCT.	0.00	0.00	0.01	0.01	0.02	0.05	0.18	0.23	0.32	0.32	1.09
	DT.	0.00	0.00	1.00	1.00	1.00	1.50	2.75	2.90	3.33	3.33	4.53
	STD.	0.00	0.00	0.00	0.00	0.00	0.87	2.49	2.88	2.37	2.87	4.72
												16813.35 AVG
12.50	NB.	0	0	3	5	7	9	14	17	19	20	39
	PCT.	0.00	0.00	0.02	0.06	0.09	0.13	0.26	0.34	0.42	0.43	1.28
	DT.	0.00	0.00	1.00	1.60	1.57	1.78	2.36	2.47	2.79	2.70	4.13
	STD.	0.00	0.00	0.00	1.20	1.05	1.13	2.09	2.38	2.48	2.45	4.36
												15505.17 AVG
18.00	NB.	0	0	5	12	18	23	31	35	40	41	59
	PCT.	0.00	0.00	0.04	0.14	0.20	0.27	0.45	0.54	0.46	0.47	1.53
	DT.	0.00	0.00	1.00	1.42	1.39	1.48	1.84	1.94	2.08	2.05	3.25
	STD.	0.00	0.00	0.00	0.66	0.76	0.83	1.57	1.82	1.92	1.90	3.82
												13579.14 AVG
24.50	NB.	0	0	6	16	23	28	36	40	45	46	64
	PCT.	0.00	0.00	0.05	0.21	0.28	0.35	0.53	0.63	0.75	0.76	1.62
	DT.	0.00	0.00	1.16	1.44	1.52	1.57	1.86	1.98	2.79	2.07	3.17
	STD.	0.00	0.00	0.00	0.96	0.93	0.94	1.53	1.75	1.95	1.83	3.70
												12931.68 AVG
32.00	NB.	0	1	9	23	30	36	45	50	56	57	75
	PCT.	0.00	0.02	0.09	0.26	0.35	0.43	0.62	0.73	0.87	0.88	1.74
	DT.	0.00	2.00	1.22	1.43	1.47	1.50	1.73	1.82	1.95	1.93	2.91
	STD.	0.00	0.00	0.42	0.86	0.95	0.87	1.40	1.61	1.71	1.69	3.48
												12234.28 AVG
40.50	NB.	0	1	9	24	32	38	47	52	58	59	77
	PCT.	0.00	0.02	0.09	0.23	0.36	0.46	0.65	0.76	0.80	0.91	1.77
	DT.	0.00	2.00	1.22	1.46	1.47	1.53	1.74	1.83	1.95	1.93	2.88
	STD.	0.00	0.00	0.42	0.91	0.97	0.88	1.39	1.59	1.69	1.68	3.45
												12045.68 AVG
50.00	NB.	0	1	10	25	33	40	49	54	61	62	80
	PCT.	0.00	0.02	0.10	0.29	0.39	0.49	0.68	0.78	0.83	0.94	1.80
	DT.	0.00	2.00	1.20	1.44	1.48	1.52	1.73	1.81	1.92	1.90	2.83
	STD.	0.00	0.00	0.40	0.90	0.99	0.99	1.38	1.58	1.66	1.65	3.40
												11886.09 AVG
LIMIT	NB.	0	2	12	27	36	44	53	59	67	68	87
	PCT.	0.00	0.02	0.11	0.30	0.42	0.52	0.71	0.82	0.88	0.99	1.86
	DT.	0.00	1.50	1.17	1.41	1.44	1.48	1.68	1.75	1.84	1.82	2.68
	STD.	0.00	0.50	0.37	0.87	0.96	0.87	1.34	1.52	1.41	1.40	3.30
												11715.01 AVG
	AVG.	0.00	61.35	32.45	23.59	23.57	22.94	18.75	17.96	17.28	17.21	11.10

TABLE B-59

PARAMETER INTERACTION OFF NOSE
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA= 60.00
LAMB T LIMIT

Y PARAMETER LT-DOT | X PARAMETER RANGE

TAPE NO. 1

Y		1C .0:	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	0	0	0	0	0	1
	PCT.	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	DT.	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	STD.	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												14387.48 AVG
2.00	NO.	0	0	0	0	0	0	0	0	0	0	4
	PCT.	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
	DT.	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50
	STD.	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
												23621.72 AVG
4.50	NO.	0	0	0	0	0	0	1	1	1	1	4
	PCT.	.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.03	0.13
	DT.	.00	0.00	0.00	0.00	0.00	0.00	1.00	4.00	4.00	4.00	4.00
	STD.	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12
												18669.01 AVG
8.00	NO.	0	0	0	1	1	1	2	2	4	4	9
	PCT.	.00	0.00	0.00	0.01	0.01	0.01	0.02	0.04	0.06	0.06	0.22
	DT.	.00	0.00	0.00	1.00	1.00	1.00	1.00	2.50	1.75	1.75	3.00
	STD.	.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.30	1.30	2.45
												15992.71 AVG
12.50	NO.	0	0	0	1	1	1	3	3	5	5	11
	PCT.	.00	0.00	0.00	0.01	0.01	0.01	0.02	0.05	0.06	0.06	0.23
	DT.	.00	0.00	0.00	1.00	1.00	1.00	1.00	2.00	1.60	1.60	2.44
	STD.	.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	1.20	1.20	2.35
												15479.95 AVG
18.00	NO.	0	0	0	1	1	1	3	4	6	6	13
	PCT.	.00	0.00	0.00	0.02	0.02	0.02	0.03	0.06	0.08	0.08	0.26
	DT.	.00	0.00	0.00	2.00	2.00	2.00	1.33	2.00	1.67	1.67	2.46
	STD.	.00	0.00	0.00	0.00	0.00	0.00	0.47	1.22	1.11	1.11	2.21
												14974.16 AVG
24.50	NO.	0	0	1	2	3	3	5	6	9	9	16
	PCT.	.00	0.00	0.01	0.02	0.03	0.03	0.05	0.09	0.11	0.11	0.29
	DT.	.00	0.00	1.00	1.50	1.33	1.33	1.20	1.83	1.56	1.56	2.25
	STD.	.00	0.00	0.00	0.50	0.47	0.47	0.40	1.07	0.96	0.96	2.05
												13741.75 AVG
32.00	NO.	0	0	2	4	5	5	7	8	11	11	18
	PCT.	.00	0.00	0.02	0.04	0.05	0.05	0.06	0.10	0.13	0.13	0.30
	DT.	.00	0.00	1.00	1.25	1.20	1.20	1.14	1.63	1.45	1.45	2.11
	STD.	.00	0.00	0.00	0.43	0.40	0.40	0.35	0.99	0.89	0.89	1.97
												13074.23 AVG
40.50	NO.	0	0	3	6	6	8	10	12	15	15	22
	PCT.	.00	0.00	0.04	0.06	0.07	0.07	0.09	0.14	0.17	0.17	0.35
	DT.	.00	0.00	1.00	1.17	1.13	1.13	1.10	1.42	1.40	1.40	2.08
	STD.	.00	0.00	0.00	0.37	0.33	0.33	0.30	0.86	0.80	0.80	1.81
												12290.91 AVG
50.00	NO.	0	0	3	7	11	11	13	15	18	18	25
	PCT.	.00	0.00	0.02	0.06	0.10	0.10	0.11	0.16	0.19	0.19	0.38
	DT.	.00	0.00	1.00	1.14	1.09	1.09	1.08	1.33	1.33	1.33	1.88
	STD.	.00	0.00	0.00	0.35	0.29	0.29	0.27	0.79	0.75	0.75	1.73
												11623.42 AVG
LIMIT	NO.	0	0	3	6	12	13	15	18	21	22	29
	PCT.	.00	0.00	0.02	0.07	0.10	0.11	0.13	0.18	0.22	0.22	0.41
	DT.	.00	0.00	1.00	1.13	1.08	1.38	1.07	1.28	1.29	1.27	1.76
	STD.	.00	0.00	0.00	0.33	0.28	0.27	0.25	0.73	0.70	0.69	1.63
												11071.77 AVG
	AVG.	.00	0.00	28.93	30.21	32.41	33.76	30.32	24.97	25.34	26.67	17.05

TABLE B-60

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 16.00

Y PARAMETER LT-DOT — X PARAMETER RANGE

TAPE NO. 1

		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	2	2	2	2	2	5
	PCT.	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.06
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.40
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
												15556.18 AVG
2.00	NO.	0	0	0	0	2	9	13	17	23	24	44
	PCT.	0.00	0.00	0.00	0.00	0.03	0.10	0.14	0.17	0.22	0.25	0.86
	DT.	0.00	0.00	0.00	0.00	2.00	1.33	1.31	1.24	1.22	1.29	2.45
	STD.	0.00	0.00	0.00	0.00	1.00	0.47	0.61	0.55	0.51	0.61	3.83
												17333.46 AVG
4.50	NO.	0	0	0	1	3	14	21	26	32	32	47
	PCT.	0.00	0.00	0.00	0.01	0.06	0.22	0.37	0.49	0.66	0.69	1.59
	DT.	0.00	0.00	0.00	1.00	2.67	1.93	2.19	2.35	2.59	2.72	4.23
	STD.	0.00	0.00	0.00	0.00	2.36	1.53	1.71	1.75	2.00	2.36	5.62
												14847.45 AVG
8.00	NO.	0	0	0	2	6	20	26	31	37	41	53
	PCT.	0.00	0.00	0.00	0.03	0.11	0.45	0.68	0.85	1.10	1.17	2.22
	DT.	0.00	0.00	0.00	2.00	2.33	2.80	3.27	3.42	3.73	3.59	5.25
	STD.	0.00	0.00	0.00	1.00	1.80	3.87	4.07	4.37	4.76	5.00	9.33
												13074.94 AVG
12.50	NO.	0	0	1	4	8	19	25	29	37	40	54
	PCT.	0.00	0.00	0.01	0.05	0.14	0.56	0.82	1.04	1.32	1.44	2.58
	DT.	0.00	0.00	1.00	1.50	2.25	3.68	4.12	4.48	4.49	4.53	5.98
	STD.	0.00	0.00	0.00	0.87	1.56	4.22	4.49	4.97	5.41	5.56	9.39
												12313.61 AVG
18.00	NO.	0	0	3	6	12	20	25	29	37	40	53
	PCT.	0.00	0.00	0.02	0.09	0.22	0.65	0.94	1.17	1.48	1.61	2.77
	DT.	0.00	0.00	1.00	1.83	2.25	4.05	4.72	5.07	5.93	5.85	6.55
	STD.	0.00	0.00	0.00	1.21	1.74	4.74	5.44	5.66	5.99	5.99	10.05
												11866.25 AVG
24.50	NO.	0	0	3	7	13	22	28	32	39	42	55
	PCT.	0.00	0.00	0.02	0.11	0.26	0.71	1.03	1.26	1.58	1.72	2.87
	DT.	0.00	0.00	1.00	2.00	2.54	4.05	4.61	4.94	5.98	5.12	6.55
	STD.	0.00	0.00	0.00	1.07	1.78	4.67	5.37	5.58	5.94	5.93	9.98
												11552.67 AVG
32.00	NO.	0	0	4	8	14	24	30	34	41	43	56
	PCT.	0.00	0.00	0.03	0.12	0.27	0.73	1.05	1.28	1.63	1.76	2.92
	DT.	0.00	0.00	1.00	1.88	2.43	3.79	4.37	4.74	4.78	5.14	6.54
	STD.	0.00	0.00	0.00	1.05	1.76	4.55	5.26	5.51	5.77	5.95	9.85
												11448.27 AVG
40.50	NO.	0	0	5	9	16	26	32	37	44	46	59
	PCT.	0.00	0.00	0.04	0.13	0.29	0.74	1.06	1.31	1.46	1.80	2.95
	DT.	0.00	0.00	1.00	1.78	2.25	3.58	4.16	4.43	.73	4.89	6.27
	STD.	0.00	0.00	0.00	1.03	1.71	4.43	5.16	5.38	.65	5.86	9.68
												11366.88 AVG
50.00	NO.	0	0	5	9	16	26	32	37	44	46	59
	PCT.	0.00	0.00	0.04	0.13	0.29	0.74	1.06	1.31	1.66	1.80	2.95
	DT.	0.00	0.00	1.00	1.78	2.25	3.58	4.16	4.43	4.73	4.89	6.27
	STD.	0.00	0.00	0.00	1.03	1.71	4.43	5.16	5.38	5.66	5.86	9.68
												11366.80 AVG
LIMIT	NO.	0	0	6	10	17	27	33	38	45	47	60
	PCT.	0.00	0.00	0.05	0.14	0.30	0.76	1.08	1.32	1.68	1.81	2.97
	DT.	0.00	0.00	1.00	1.70	2.24	3.52	4.09	4.37	4.67	4.83	6.28
	STD.	0.00	0.00	0.00	1.00	1.93	4.52	5.21	5.42	5.69	5.88	9.65
												11312.24 AVG
	AVG.	0.00	0.00	27.50	17.91	15.06	9.92	9.09	8.82	8.55	8.47	6.40

TABLE B-61

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMP T 36.00

Y PARAMETER LT-TGT

X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.5	NO.	0	0	0	0	0	0	0	0	0	0	0
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00 AVG
2.0	NO.	0	0	0	0	0	3	5	8	9	9	10
	PCT.	0.00	0.00	0.00	0.00	0.00	0.05	0.06	0.09	0.10	0.10	0.10
	DT.	0.00	0.00	0.00	0.00	0.00	2.00	1.60	1.38	1.33	1.33	1.38
	STD.	0.00	0.00	0.00	0.00	0.00	0.82	0.80	0.70	0.67	0.67	0.64
												4998.51 AVG
4.5	NO.	0	0	0	2	5	11	20	25	32	32	36
	PCT.	0.00	0.00	0.00	0.02	0.34	0.14	0.34	0.42	0.50	0.50	0.57
	DT.	0.00	0.00	0.00	1.00	1.00	1.64	2.10	2.08	1.97	1.97	1.97
	STD.	0.00	0.00	0.00	0.00	0.00	0.58	1.48	1.35	1.29	1.29	1.26
												6638.38 AVG
8.0	NO.	0	0	0	5	13	19	27	34	43	43	51
	PCT.	0.00	1.00	0.00	0.05	0.13	0.29	0.53	0.72	0.99	0.90	1.05
	DT.	0.00	0.00	0.00	1.20	1.23	1.89	2.48	2.65	2.60	2.63	2.59
	STD.	0.00	0.00	0.00	0.40	0.42	1.25	2.13	2.01	1.31	1.92	1.99
												6926.86 AVG
12.5	NO.	0	0	1	6	18	24	33	40	50	50	65
	PCT.	0.00	1.00	0.01	0.06	0.21	0.42	0.73	0.93	1.11	1.12	1.39
	DT.	0.00	0.00	1.00	1.33	1.44	2.17	2.76	2.90	2.78	2.80	2.68
	STD.	0.00	0.00	0.00	0.47	0.60	1.91	2.30	2.18	2.06	2.07	1.94
												7862.42 AVG
18.0	NO.	0	0	2	[illegible]	20	28	38	45	55	56	72
	PCT.	0.00	0.00	0.02	0.11	0.28	0.52	0.85	1.07	1.26	1.28	1.58
	DT.	0.00	0.00	1.00	1.56	1.75	2.32	2.82	2.98	2.97	2.86	2.75
	STD.	0.00	0.00	0.00	0.83	0.99	1.96	2.23	2.14	2.05	2.05	1.91
												6765.35 AVG
24.5	NO.	0	0	2	11	24	33	43	50	62	63	79
	PCT.	0.00	0.00	0.02	0.14	0.33	0.57	0.91	1.13	1.33	1.35	1.66
	DT.	0.00	0.00	1.00	1.55	1.71	2.18	2.65	2.82	2.69	2.68	2.63
	STD.	0.00	0.00	0.00	0.78	0.73	1.85	2.16	2.09	2.00	2.00	1.88
												6621.84 AVG
32.0	NO.	0	0	4	13	29	38	49	56	68	69	85
	PCT.	0.00	0.00	0.03	0.15	0.36	0.62	0.97	1.18	1.39	1.40	1.72
	DT.	0.00	0.00	1.00	1.46	1.52	2.05	2.47	2.64	2.56	2.55	2.54
	STD.	0.00	0.00	0.00	0.75	0.59	1.76	2.08	2.05	1.36	1.96	1.85
												6497.47 AVG
40.5	NO.	0	0	4	13	29	39	49	56	68	69	85
	PCT.	0.00	0.00	0.04	0.17	0.39	0.65	0.99	1.21	1.41	1.43	1.75
	DT.	0.00	0.00	1.25	1.62	1.69	2.08	2.53	2.70	2.60	2.59	2.58
	STD.	0.00	0.00	0.43	1.00	0.99	1.77	2.08	2.04	1.36	1.96	1.85
												6431.05 AVG
50.0	NO.	0	1	6	15	31	41	51	58	70	71	87
	PCT.	0.00	0.01	0.06	0.18	0.42	0.67	1.01	1.23	1.44	1.45	1.77
	DT.	0.00	1.00	1.17	1.53	1.58	2.05	2.49	2.66	2.57	2.56	2.55
	STD.	0.00	0.00	0.37	0.96	0.76	1.74	2.05	2.02	1.34	1.94	1.84
												6357.51 AVG
LIMIT	NO.	0	1	6	16	31	41	51	58	70	71	87
	PCT.	0.00	0.01	0.06	0.19	0.43	0.69	1.04	1.26	1.47	1.48	1.80
	DT.	0.00	1.00	1.17	1.50	1.74	2.12	2.55	2.72	2.63	2.62	2.60
	STD.	0.00	0.00	0.37	0.94	1.14	2.06	2.27	2.22	2.12	2.12	1.99
												6296.71 AVG
	AVG.	[illegible]	42.96	29.76	20.12	17.22	14.96	12.00	11.37	10.48	10.66	10.37

TABLE B-62

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 54.00

Y PARAMETER LT-DOT — X PARAMETER RANGE — TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	1	1	1	1	1	1
	PCT.	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												3460.09 AVG
2.00	NO.	0	0	0	0	0	6	12	16	17	19	20
	PCT.	0.00	0.00	0.00	0.00	0.00	0.05	0.10	0.16	0.18	0.19	0.24
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.06	1.25	1.29	1.26	1.50
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.43	0.46	0.44	1.12
												12285.46 AVG
4.50	NO.	0	0	0	0	3	19	31	39	48	49	51
	PCT.	0.00	0.00	0.00	0.00	0.03	0.22	0.42	0.64	0.90	0.82	0.97
	DT.	0.00	0.00	0.00	0.00	1.33	1.47	1.68	2.05	2.08	2.18	2.37
	STD.	0.00	0.00	0.00	0.00	0.47	0.82	1.09	1.58	1.53	1.52	2.55
												10847.65 AVG
8.00	NO.	0	0	1	1	9	26	40	46	54	57	67
	PCT.	0.00	0.00	0.01	0.01	0.10	0.36	0.76	1.05	1.33	1.39	1.49
	DT.	0.00	0.00	1.00	1.00	1.33	1.73	2.38	2.85	3.09	3.05	3.16
	STD.	0.00	0.00	0.00	0.00	0.47	0.94	1.58	2.25	2.19	2.14	2.81
												8788.88 AVG
12.50	NO.	0	0	1	3	16	31	42	58	60	66	83
	PCT.	0.00	0.00	0.01	0.02	0.20	0.53	0.95	1.26	1.60	1.69	2.13
	DT.	0.00	0.00	1.00	1.00	1.56	2.13	2.83	3.28	3.33	3.21	3.22
	STD.	0.00	0.00	0.00	0.00	0.96	1.45	2.19	2.79	2.64	2.56	2.93
												8416.79 AVG
18.00	NO.	0	0	1	7	27	41	54	62	72	88	99
	PCT.	0.00	0.00	0.01	0.07	0.33	0.69	1.13	1.47	1.79	1.98	2.48
	DT.	0.00	0.00	1.00	1.29	1.52	2.10	2.63	2.97	3.11	2.97	3.84
	STD.	0.00	0.00	0.00	0.70	0.53	1.51	2.38	2.83	2.73	2.64	2.91
												8167.86 AVG
24.50	NO.	0	0	1	8	29	42	56	66	76	86	106
	PCT.	0.00	0.00	0.01	0.09	0.38	0.74	1.21	1.57	1.59	2.03	2.54
	DT.	0.00	0.00	1.00	1.38	1.66	2.21	2.70	2.98	3.12	2.95	3.08
	STD.	0.00	0.00	0.00	0.70	0.92	1.60	2.36	2.88	2.79	2.67	2.91
												7999.38 AVG
32.00	NO.	0	0	1	11	35	48	62	72	93	92	112
	PCT.	0.00	0.00	0.02	0.12	0.45	0.62	1.29	1.66	1.39	2.13	2.65
	DT.	0.00	0.00	2.00	1.36	1.53	2.15	2.61	2.89	3.08	2.98	2.96
	STD.	0.00	0.00	0.00	0.88	0.93	1.58	2.32	2.83	2.75	2.65	2.88
												7824.86 AVG
40.50	NO.	0	0	2	14	37	49	63	73	95	95	114
	PCT.	0.00	0.00	0.02	0.17	0.51	0.89	1.36	1.73	2.07	2.22	2.74
	DT.	0.00	0.00	1.50	1.50	1.73	2.27	2.70	2.97	3.95	2.93	3.01
	STD.	0.00	0.00	0.50	0.62	0.98	1.59	2.32	2.82	2.73	2.63	2.87
												7674.17 AVG
50.00	NO.	0	0	4	21	42	54	68	79	92	102	121
	PCT.	0.00	0.00	0.04	0.22	0.57	0.94	1.41	1.80	2.14	2.29	2.81
	DT.	0.00	0.00	1.25	1.33	1.59	2.19	2.60	2.85	2.31	2.81	2.91
	STD.	0.00	0.00	0.43	0.71	0.96	1.55	2.27	2.75	2.68	2.58	2.82
												7539.12 AVG
LIMIT	NO.	0	0	7	24	45	60	74	85	98	108	127
	PCT.	0.00	0.00	0.06	0.25	0.59	0.99	1.46	1.84	2.19	2.34	2.86
	DT.	0.00	0.00	1.14	1.29	1.54	2.07	2.47	2.72	2.98	2.71	2.82
	STD.	0.00	0.00	0.35	0.66	0.95	1.52	2.22	2.69	2.63	2.54	2.78
												7444.93 AVG
	AVG.	0.00	0.00	44.37	32.18	21.54	17.06	13.50	12.24	11.41	11.48	10.88

TABLE B-63

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 72.00

Y PARAMETER LT-DOT — X PARAMETER RANGE — TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	[illegible]	0	0	0	0	1	3	5	5	5	5
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.04	0.04	0.04
	DT.	[illegible]	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												4478.71 AVG
2.00	NO.	[illegible]	0	0	0	0	2	6	13	15	16	16
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.02	0.06	0.15	0.18	0.19	0.19
	DT.	[illegible]	0.00	0.00	0.00	0.00	1.00	1.17	1.46	1.47	1.58	1.58
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.37	1.34	1.58	1.46	1.46
												5641.82 AVG
4.50	NO.	[illegible]	0	0	0	1	6	17	33	48	43	45
	PCT.	[illegible]	0.00	0.00	0.00	0.02	0.10	0.26	0.78	0.32	0.87	0.89
	DT.	[illegible]	0.00	0.00	0.00	3.00	2.17	1.94	2.67	2.58	2.53	2.47
	STD.	[illegible]	0.00	0.00	0.00	0.00	1.77	1.35	2.18	2.21	2.17	2.15
												5568.89 AVG
8.00	NO.	[illegible]	0	0	4	7	21	39	55	44	78	79
	PCT.	[illegible]	0.00	0.50	0.03	0.09	0.38	0.66	1.31	1.51	1.64	1.77
	DT.	[illegible]	0.00	0.00	1.00	1.57	1.76	2.13	2.98	2.95	2.93	2.81
	STD.	[illegible]	0.00	0.00	0.00	0.90	1.19	1.36	2.38	2.41	2.34	2.24
												5981.64 AVG
12.50	NO.	[illegible]	0	1	6	13	31	52	71	81	89	108
	PCT.	[illegible]	0.00	0.01	0.06	0.15	0.45	0.89	1.61	1.36	2.03	2.35
	DT.	[illegible]	0.00	1.00	1.17	1.46	1.84	2.13	2.85	2.58	2.85	2.72
	STD.	[illegible]	0.00	0.00	0.37	0.75	1.11	1.41	2.26	2.40	2.31	2.14
												6288.95 AVG
18.00	NO.	[illegible]	0	1	7	22	41	62	80	91	99	119
	PCT.	[illegible]	0.00	0.01	0.07	0.26	0.65	1.13	1.91	2.16	2.34	2.69
	DT.	[illegible]	0.00	1.00	1.29	1.45	1.98	2.29	2.99	2.38	2.96	2.83
	STD.	[illegible]	0.00	0.00	0.45	0.56	1.14	1.68	2.52	2.61	2.52	2.33
												5978.88 AVG
24.50	NO.	[illegible]	0	1	6	25	42	65	86	97	105	126
	PCT.	[illegible]	0.00	0.01	0.09	0.30	0.78	1.21	2.01	2.27	2.45	2.82
	DT.	[illegible]	0.00	1.00	1.38	1.52	2.10	2.32	2.93	2.34	2.92	2.80
	STD.	[illegible]	0.00	0.00	0.48	0.91	1.23	1.71	2.51	2.59	2.58	2.32
												5954.22 AVG
32.00	NO.	[illegible]	0	2	12	34	50	72	94	105	113	134
	PCT.	[illegible]	0.00	0.02	0.13	0.42	0.85	1.37	2.19	2.46	2.63	3.00
	DT.	[illegible]	0.00	1.00	1.33	1.56	2.14	2.39	2.93	2.33	2.92	2.81
	STD.	[illegible]	0.00	0.00	0.47	0.95	1.27	1.71	2.46	2.55	2.46	2.38
												5740.55 AVG
40.50	NO.	[illegible]	0	3	17	38	54	75	98	108	116	136
	PCT.	[illegible]	0.00	0.02	0.17	0.47	0.90	1.44	2.28	2.55	2.72	3.18
	DT.	[illegible]	0.00	1.00	1.24	1.55	2.59	2.41	2.92	2.35	2.94	2.85
	STD.	[illegible]	0.00	0.00	0.42	0.91	1.24	1.71	2.49	2.57	2.49	2.33
												5677.95 AVG
50.00	NO.	[illegible]	0	5	19	40	56	78	101	111	119	139
	PCT.	[illegible]	0.00	0.04	0.21	0.51	0.95	1.52	2.35	2.62	2.79	3.18
	DT.	[illegible]	0.00	1.00	1.37	1.50	2.13	2.44	2.92	2.35	2.94	2.86
	STD.	[illegible]	0.00	0.00	0.58	0.74	1.23	1.69	2.47	2.56	2.48	2.34
												5618.64 AVG
LIMIT	NO.	[illegible]	3	15	27	49	47	91	113	125	133	153
	PCT.	[illegible]	0.02	0.13	0.31	0.53	1.09	1.68	2.53	2.31	2.98	3.37
	DT.	[illegible]	1.00	1.07	1.44	1.51	2.93	2.31	2.81	2.42	2.81	2.76
	STD.	[illegible]	0.00	0.25	0.68	0.39	1.22	1.66	2.41	2.58	2.43	2.38
												5423.79 AVG
	AVG.	[illegible]	97.40	63.17	43.95	31.53	23.43	19.96	15.75	15.14	14.64	14.17

TABLE B-64

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 90.00

Y PARAMETER LIMIT

TAPE NO. 1

X PARAMETER RANGE

Y		.0	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.5	NO.	[illegible]	[illegible]	0	0	0	0	0	0	0	0	0
	PCT.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DT.	[illegible]	[illegible]	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00 AVG
2.0	NO.	[illegible]	[illegible]	0	0	0	1	4	6	8	12	13
	PCT.	[illegible]	[illegible]	0.00	0.00	0.00	0.01	0.03	0.06	0.08	0.11	0.13
	DT.	[illegible]	[illegible]	0.00	0.00	0.00	1.00	1.03	1.33	1.25	1.17	1.23
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.75	0.46	0.55	0.50
												6998.36 AVG
4.5	NO.	[illegible]	[illegible]	0	0	1	8	18	25	36	44	47
	PCT.	[illegible]	[illegible]	0.00	0.00	0.01	0.38	0.21	0.36	0.50	0.68	0.81
	DT.	[illegible]	[illegible]	0.00	0.00	1.00	1.25	1.44	1.80	1.75	1.93	2.17
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.43	0.83	1.10	1.09	1.29	1.67
												7386.38 AVG
8.0	NO.	[illegible]	[illegible]	0	0	6	22	38	49	49	80	96
	PCT.	[illegible]	[illegible]	0.00	0.00	0.03	0.24	0.57	0.83	1.19	1.56	1.92
	DT.	[illegible]	[illegible]	0.00	0.00	1.00	1.36	1.89	2.12	2.16	2.44	2.58
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.57	1.14	1.41	1.53	1.79	1.99
												7253.84 AVG
12.5	NO.	[illegible]	[illegible]	0	2	13	35	57	69	82	104	124
	PCT.	[illegible]	[illegible]	0.00	0.02	0.14	0.46	0.97	1.30	1.41	2.27	2.78
	DT.	[illegible]	[illegible]	0.00	1.00	1.38	1.66	2.12	2.36	2.47	2.74	2.81
	STD.	[illegible]	[illegible]	0.00	0.00	0.62	0.83	1.26	1.52	1.43	1.96	2.06
												6999.50 AVG
18.0	NO.	[illegible]	[illegible]	0	7	19	44	65	81	102	114	137
	PCT.	[illegible]	[illegible]	0.00	0.06	0.25	0.66	1.20	1.50	2.13	2.61	3.17
	DT.	[illegible]	[illegible]	0.00	1.14	1.53	1.89	2.31	2.44	2.42	2.87	2.90
	STD.	[illegible]	[illegible]	0.00	0.35	0.91	1.00	1.35	1.53	1.42	1.90	2.00
												6775.34 AVG
24.5	NO.	[illegible]	[illegible]	1	11	26	54	74	93	113	125	140
	PCT.	[illegible]	[illegible]	0.01	0.16	0.34	0.79	1.36	1.78	2.34	2.82	3.38
	DT.	[illegible]	[illegible]	1.00	1.18	1.52	1.83	2.31	2.40	2.59	2.82	2.86
	STD.	[illegible]	[illegible]	[illegible]	0.39	0.94	1.01	1.37	1.54	1.62	1.90	1.99
												6568.53 AVG
32.0	NO.	[illegible]	[illegible]	3	17	32	59	79	97	118	130	153
	PCT.	[illegible]	[illegible]	[illegible]	0.15	0.40	0.86	1.45	1.88	2.44	2.93	3.58
	DT.	[illegible]	[illegible]	[illegible]	1.12	1.56	1.83	2.30	2.42	2.59	2.82	2.86
	STD.	[illegible]	[illegible]	[illegible]	0.32	0.79	0.99	1.39	1.54	1.62	1.89	1.98
												6461.25 AVG
40.5	NO.	[illegible]	[illegible]	5	21	38	66	85	105	126	138	162
	PCT.	[illegible]	[illegible]	[illegible]	0.29	0.48	0.98	1.57	2.01	2.58	3.06	3.64
	DT.	[illegible]	[illegible]	[illegible]	1.19	1.56	1.86	2.32	2.40	2.56	2.78	2.81
	STD.	[illegible]	[illegible]	[illegible]	0.56	0.91	1.07	1.46	1.58	1.65	1.90	1.98
												6318.49 AVG
50.0	NO.	[illegible]	[illegible]	5	21	41	68	89	109	130	142	167
	PCT.	[illegible]	[illegible]	[illegible]	0.20	0.50	1.01	1.61	2.05	2.62	3.18	3.69
	DT.	[illegible]	[illegible]	[illegible]	1.19	1.54	1.85	2.27	2.36	2.52	2.74	2.77
	STD.	[illegible]	[illegible]	[illegible]	0.56	0.99	1.06	1.44	1.57	1.44	1.89	1.97
												6293.17 AVG
LIMIT	NO.	[illegible]	[illegible]	[illegible]	29	52	76	99	119	141	153	179
	PCT.	[illegible]	[illegible]	[illegible]	0.28	0.52	1.13	1.75	2.20	2.79	3.27	3.86
	DT.	[illegible]	[illegible]	[illegible]	1.21	1.50	1.82	2.21	2.32	2.48	2.66	2.78
	STD.	[illegible]	[illegible]	[illegible]	0.55	0.44	1.36	1.44	1.56	1.44	1.87	1.95
												6137.91 AVG
	AVG.	[illegible]	47.65	54.76	35.15	31.14	23.13	18.53	17.07	15.44	14.14	13.35

CONFIDENTIAL

TABLE B-65

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 100.00

Y PARAMETER LT-DST | X PARAMETER RANGE

TAPE NO. 1

Y		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	0	1	1	1	1	1
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												3986.74 AVG
2.00	NO.	0	0	0	0	1	1	5	6	8	8	8
	PCT.	0.00	0.00	0.00	0.00	0.01	0.01	0.04	0.05	0.06	0.06	0.06
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												4914.75 AVG
4.50	NO.	0	0	0	1	3	8	16	23	28	29	31
	PCT.	0.00	0.00	0.00	0.01	0.03	0.09	0.22	0.31	0.38	0.41	0.42
	DT.	0.00	0.00	0.00	1.00	1.33	1.38	1.69	1.78	1.68	1.76	1.71
	STD.	0.00	0.00	0.00	0.00	0.47	0.48	0.77	1.38	1.17	1.52	1.49
												5306.27 AVG
8.00	NO.	0	0	0	1	5	17	29	48	58	73	82
	PCT.	0.00	0.00	0.00	0.01	0.06	0.22	0.45	0.77	0.95	1.16	1.33
	DT.	0.00	0.00	0.00	1.00	1.40	1.65	1.97	2.02	2.05	1.99	2.04
	STD.	0.00	0.00	0.00	0.00	0.49	0.76	1.03	1.18	1.20	1.30	1.40
												6476.74 AVG
12.50	NO.	0	0	0	2	12	30	47	78	95	107	123
	PCT.	0.00	0.00	0.00	0.02	0.12	0.37	0.69	1.13	1.46	1.77	2.09
	DT.	0.00	0.00	0.00	1.00	1.25	1.53	1.85	2.03	2.15	2.07	2.13
	STD.	0.00	0.00	0.00	0.00	0.43	0.81	1.05	1.23	1.19	1.27	1.30
												6818.52 AVG
18.00	NO.	0	0	0	2	17	39	55	75	91	114	131
	PCT.	0.00	0.00	0.00	0.02	0.17	0.50	0.89	1.39	1.76	2.12	2.40
	DT.	0.00	0.00	0.00	1.00	1.24	1.62	2.02	2.32	2.43	2.33	2.37
	STD.	0.00	0.00	0.00	0.00	0.42	0.77	1.09	1.30	1.30	1.44	1.45
												6630.86 AVG
24.50	NO.	0	0	0	6	27	49	67	87	103	126	143
	PCT.	0.00	0.00	0.00	0.05	0.26	0.61	1.03	1.55	1.73	2.30	2.67
	DT.	0.00	0.00	0.00	1.30	1.22	1.57	1.93	2.23	2.35	2.29	2.34
	STD.	0.00	0.00	0.00	0.60	0.42	0.76	1.06	1.40	1.42	1.46	1.46
												6432.56 AVG
32.00	NO.	0	0	0	9	35	58	75	94	110	133	151
	PCT.	0.00	0.00	0.00	0.08	0.36	0.76	1.19	1.71	2.09	2.46	2.84
	DT.	0.00	0.00	0.00	1.11	1.29	1.64	1.99	2.28	2.38	2.32	2.36
	STD.	0.00	0.00	0.00	0.31	0.45	0.76	1.08	1.47	1.48	1.51	1.51
												6251.19 AVG
40.50	NO.	0	0	1	12	40	66	83	101	118	141	159
	PCT.	0.00	0.00	0.01	0.16	0.41	0.85	1.29	1.81	2.21	2.58	2.96
	DT.	0.00	0.00	1.00	1.08	1.27	1.61	1.95	2.25	2.35	2.29	2.33
	STD.	0.00	0.00	0.00	0.28	0.50	0.76	1.06	1.46	1.49	1.51	1.51
												6125.34 AVG
50.00	NO.	0	0	2	16	45	78	87	105	122	146	164
	PCT.	0.00	0.00	0.02	0.14	0.47	0.92	1.36	1.89	2.29	2.67	3.05
	DT.	0.00	0.00	1.06	1.13	1.31	1.64	1.97	2.26	2.35	2.29	2.33
	STD.	0.00	0.00	0.06	0.33	0.55	0.53	1.13	1.49	1.51	1.53	1.52
												6023.63 AVG
LIMIT	NO.	1	3	7	28	59	83	99	117	134	160	177
	PCT.	0.01	0.02	0.06	0.24	0.59	1.05	1.49	2.02	2.42	2.81	3.20
	DT.	1.00	1.00	1.06	1.07	1.25	1.58	1.89	2.16	2.26	2.20	2.27
	STD.	0.00	0.00	0.00	0.26	0.51	0.79	1.10	1.46	1.49	1.50	1.50
												5897.23 AVG
	AVG.	[illegible]	127.05	85.55	52.79	34.54	26.20	21.35	18.00	16.59	16.08	15.36

TABLE B-66

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LANE T 126.00

Y PARAMETER LT-DBT

X PARAMETER RANGE

TAPE NO. 1

		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	[illegible]	0	0	0	0	0	0	0	0	0	0
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00 AVG
2.00	NO.	[illegible]	0	0	0	2	2	4	4	4	4	4
	PCT.	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.03	0.03	0.03	0.03
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												3889.84 AVG
4.00	NO.	[illegible]	0	0	0	5	9	13	15	15	17	19
	PCT.	0.00	0.00	0.00	0.00	0.05	0.10	0.13	0.14	0.14	0.17	0.22
	DT.	0.00	0.00	0.00	0.00	1.20	1.33	1.23	1.20	1.20	1.24	1.42
	STD.	0.00	0.00	0.00	0.00	0.40	0.67	0.58	0.54	0.54	0.55	0.82
												6389.77 AVG
8.00	NO.	[illegible]	0	0	1	7	15	26	39	47	55	62
	PCT.	0.00	0.00	0.00	0.01	0.06	0.18	0.30	0.45	0.61	0.72	0.83
	DT.	0.00	0.00	0.00	1.00	1.43	1.47	1.46	1.46	1.62	1.64	1.68
	STD.	0.00	0.00	0.00	0.00	0.73	0.88	0.84	0.78	0.99	0.84	0.89
												6687.14 AVG
12.50	NO.	[illegible]	0	0	2	13	27	48	69	84	99	118
	PCT.	0.00	0.00	0.00	0.02	0.14	0.33	0.57	0.86	1.13	1.36	1.57
	DT.	0.00	0.00	0.00	1.00	1.38	1.52	1.50	1.57	1.68	1.73	1.79
	STD.	0.00	0.00	0.00	0.00	0.62	0.74	0.71	0.73	0.98	0.79	0.84
												6762.33 AVG
18.00	NO.	[illegible]	0	0	2	16	32	59	77	84	110	122
	PCT.	0.00	0.00	0.00	0.02	0.17	0.38	0.72	1.03	1.33	1.60	1.82
	DT.	0.00	0.00	0.00	1.00	1.31	1.50	1.53	1.68	1.78	1.83	1.87
	STD.	0.00	0.00	0.00	0.00	0.56	0.71	0.67	0.73	0.79	0.77	0.82
												6617.14 AVG
24.50	NO.	[illegible]	0	0	6	20	39	64	85	103	118	129
	PCT.	0.00	0.00	0.20	0.05	0.23	0.49	0.84	1.17	1.49	1.77	2.06
	DT.	0.00	0.00	0.00	1.00	1.45	1.59	1.64	1.73	1.92	1.88	1.95
	STD.	0.00	0.00	0.00	0.00	0.57	0.78	0.76	0.79	0.93	0.88	0.87
												6391.28 AVG
32.00	NO.	[illegible]	0	1	8	27	48	71	93	111	126	137
	PCT.	0.00	0.00	0.01	0.07	0.30	0.61	0.96	1.31	1.64	1.92	2.15
	DT.	0.00	0.00	1.00	1.13	1.37	1.58	1.69	1.76	1.96	1.91	1.97
	STD.	0.00	0.00	0.00	0.33	0.73	0.84	0.83	0.90	0.92	0.88	0.93
												6162.28 AVG
40.50	NO.	[illegible]	0	1	8	26	52	75	98	116	131	142
	PCT.	0.00	0.00	0.01	0.07	0.30	0.65	1.01	1.38	1.72	2.00	2.23
	DT.	0.00	0.00	1.00	1.13	1.36	1.56	1.69	1.77	1.95	1.91	1.96
	STD.	0.00	0.00	0.00	0.33	0.72	0.82	0.82	0.89	0.91	0.88	0.92
												6081.69 AVG
50.00	NO.	[illegible]	0	3	10	35	58	80	103	121	136	147
	PCT.	0.00	0.00	0.02	0.09	0.36	0.71	1.08	1.44	1.78	2.06	2.29
	DT.	0.00	0.00	1.00	1.10	1.29	1.53	1.69	1.76	1.94	1.90	1.95
	STD.	0.00	0.00	0.00	0.30	0.56	0.79	0.85	0.93	0.94	0.91	0.95
												5961.38 AVG
LIMIT	NO.	[illegible]	2	13	35	52	94	109	134	152	168	179
	PCT.	0.00	0.02	0.10	0.30	0.50	0.96	1.35	1.73	2.08	2.37	2.60
	DT.	0.00	1.00	·.96	1.09	1.21	1.43	1.55	1.62	1.71	1.77	1.82
	STD.	0.00	0.00	·.90	0.28	0.57	0.74	0.82	0.90	0.93	0.91	0.95
												5509.65 AVG
	AVG.	0.00	103.08	62.47	71.57	47.47	34.35	30.00	26.65	24.21	22.70	21.42

TABLE B-67

PARAMETER INTERACTION AFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LANDA = 60.00
LAMB T 144.00

Y PARAMETER LT-DBT

X PARAMETER RANGE

TAPE NO. 1

Y		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	0	0	1	1	1	2
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												7667.41 AVG
2.00	NO.	0	0	0	0	2	4	5	6	6	7	8
	PCT.	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.06	0.06	0.07	0.08
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.20	1.33	1.33	1.29	1.25
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.75	0.75	0.70	0.66
												4985.57 AVG
4.50	NO.	0	0	0	2	9	13	16	19	20	22	25
	PCT.	0.00	0.00	0.00	0.02	0.08	0.11	0.14	0.20	0.24	0.26	0.30
	DT.	0.00	0.00	0.00	1.00	1.11	1.08	1.13	1.32	1.50	1.50	1.48
	STD.	0.00	0.00	0.00	0.00	0.31	0.27	0.33	0.80	1.36	1.50	1.42
												6020.62 AVG
8.00	NO.	0	0	0	2	12	24	31	42	49	53	58
	PCT.	0.00	0.00	0.00	0.02	0.12	0.27	0.42	0.63	0.77	0.84	0.92
	DT.	0.00	0.00	0.00	1.00	1.25	1.42	1.68	1.88	1.38	1.98	1.98
	STD.	0.00	0.00	0.00	0.00	0.43	0.64	0.78	1.05	1.35	1.42	1.37
												6147.54 AVG
12.50	NO.	0	0	0	5	15	39	55	74	84	89	96
	PCT.	0.00	0.00	0.00	0.04	0.16	0.42	0.73	1.11	1.35	1.44	1.57
	DT.	0.00	0.00	0.00	1.00	1.33	1.36	1.65	1.88	2.04	2.03	2.05
	STD.	0.00	0.00	0.00	0.00	0.50	0.70	0.81	1.04	1.22	1.28	1.29
												5978.37 AVG
18.00	NO.	0	0	0	5	18	46	65	86	97	104	118
	PCT.	0.00	0.00	0.00	0.04	0.18	0.51	0.85	1.28	1.58	1.68	1.83
	DT.	0.00	0.00	0.00	1.00	1.28	1.39	1.65	1.87	2.04	2.03	2.00
	STD.	0.00	0.00	0.00	0.00	0.56	0.67	0.79	1.02	1.22	1.27	1.37
												5936.67 AVG
24.50	NO.	0	0	0	6	24	56	74	94	105	112	118
	PCT.	0.00	0.00	0.00	0.06	0.25	0.61	0.98	1.41	1.72	1.82	1.96
	DT.	0.00	0.00	0.00	1.00	1.29	1.36	1.66	1.88	2.05	2.04	2.08
	STD.	0.00	0.00	0.00	0.00	0.61	0.69	0.83	1.04	1.21	1.26	1.36
												5737.46 AVG
32.00	NO.	0	0	0	10	30	66	85	105	117	124	130
	PCT.	0.00	0.00	0.00	0.08	0.30	0.70	1.09	1.52	1.84	1.94	2.08
	DT.	0.00	0.00	0.00	1.00	1.27	1.33	1.61	1.82	1.97	1.96	2.01
	STD.	0.00	0.00	0.00	0.00	0.57	0.66	0.81	1.05	1.23	1.27	1.36
												5577.81 AVG
40.50	NO.	0	0	0	16	35	72	92	114	126	133	139
	PCT.	0.00	0.00	0.00	0.13	0.38	0.79	1.19	1.64	1.96	2.06	2.20
	DT.	0.00	0.00	0.00	1.00	1.34	1.38	1.62	1.80	1.94	1.94	1.99
	STD.	0.00	0.00	0.00	0.00	0.53	0.73	0.87	1.09	1.28	1.32	1.40
												5433.57 AVG
50.00	NO.	0	0	0	16	37	74	94	117	129	136	142
	PCT.	0.00	0.00	0.00	0.13	0.39	0.81	1.21	1.67	2.00	2.11	2.25
	DT.	0.00	0.00	0.00	1.00	1.32	1.38	1.62	1.79	1.94	1.94	1.99
	STD.	0.00	0.00	0.00	0.00	0.62	0.73	0.86	1.08	1.20	1.33	1.41
												5423.59 AVG
LIMIT	NO.	0	1	12	33	60	93	108	131	143	149	155
	PCT.	0.00	0.01	0.10	0.29	0.52	1.05	1.45	1.91	2.25	2.36	2.51
	DT.	0.00	1.00	1.00	1.09	1.38	1.50	1.69	1.82	1.97	1.99	2.03
	STD.	0.00	0.00	0.00	0.29	0.51	0.81	0.95	1.15	1.35	1.39	1.45
												5032.57 AVG
	AVG.	0.00	116.49	114.97	67.80	48.08	34.29	27.81	23.47	21.46	21.33	20.52

TABLE B-68

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 162.00

X PARAMETER LIMIT — Y PARAMETER RANGE

TAPE NO. 1

X		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.0	NO.	[illegible]	0	0	0	0	0	0	0	1	1	1
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												6406.45 AVG
2.0	NO.	[illegible]	0	0	0	1	2	3	6	8	9	9
	PCT.	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.05	0.07	0.10	0.11
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.13	1.33	1.56
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.47	0.96
												7052.98 AVG
4.0	NO.	[illegible]	0	0	0	3	8	13	22	22	24	25
	PCT.	0.00	0.00	0.00	0.00	0.02	0.09	0.13	0.21	0.24	0.28	0.34
	DT.	0.00	0.00	0.00	0.00	1.00	1.38	1.23	1.18	1.36	1.46	1.68
	STD.	0.00	0.00	0.00	0.00	0.00	0.48	0.42	0.39	0.57	0.71	1.01
												7083.18 AVG
8.0	NO.	[illegible]	0	0	0	6	16	28	37	37	38	39
	PCT.	0.00	0.00	0.00	0.00	0.05	0.18	0.31	0.47	0.52	0.56	0.62
	DT.	0.00	0.00	0.00	0.00	1.00	1.38	1.39	1.59	1.76	1.84	2.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.48	0.67	0.85	0.91	0.99	1.26
												6833.99 AVG
12.0	NO.	[illegible]	0	0	0	11	25	43	52	53	54	56
	PCT.	0.00	0.00	0.00	0.00	0.09	0.27	0.49	0.67	0.73	0.77	0.87
	DT.	0.00	0.00	0.00	0.00	1.00	1.36	1.44	1.62	1.74	1.80	1.95
	STD.	0.00	0.00	0.00	0.00	0.00	0.62	0.73	0.88	0.93	0.99	1.22
												5889.34 AVG
18.0	NO.	[illegible]	0	0	1	18	33	53	63	65	66	68
	PCT.	0.00	0.00	0.00	0.01	0.14	0.38	0.65	0.86	0.94	0.99	1.09
	DT.	0.00	0.00	0.00	1.00	1.00	1.42	1.55	1.71	1.82	1.88	2.01
	STD.	0.00	0.00	0.00	0.00	0.00	0.60	0.74	0.92	0.94	1.05	1.32
												5574.12 AVG
24.0	NO.	[illegible]	0	0	3	22	37	60	68	70	71	73
	PCT.	0.00	0.00	0.00	0.02	0.18	0.42	0.73	0.94	1.02	1.07	1.18
	DT.	0.00	0.00	0.00	1.00	1.00	1.43	1.53	1.74	1.83	1.89	2.03
	STD.	0.00	0.00	0.00	0.00	0.00	0.59	0.72	0.90	0.94	1.04	1.33
												5564.26 AVG
32.0	NO.	[illegible]	0	0	7	27	44	67	74	76	77	80
	PCT.	0.00	0.00	0.00	0.06	0.22	0.49	0.81	1.01	1.09	1.14	1.26
	DT.	0.00	0.00	0.00	1.00	1.00	1.39	1.51	1.72	1.30	1.86	1.98
	STD.	0.00	0.00	0.00	0.00	0.00	0.57	0.70	0.88	0.92	1.02	1.29
												5421.86 AVG
40.0	NO.	[illegible]	0	0	9	33	53	74	81	82	84	87
	PCT.	0.00	0.00	0.00	0.07	0.27	0.57	0.89	1.11	1.19	1.25	1.36
	DT.	0.00	0.00	0.00	1.00	1.03	1.36	1.51	1.72	1.82	1.86	1.97
	STD.	0.00	0.00	0.00	0.00	0.17	0.59	0.74	0.89	0.94	1.04	1.32
												5234.49 AVG
50.0	NO.	[illegible]	[illegible]	1	12	41	60	79	86	88	90	93
	PCT.	0.00	0.00	0.01	0.10	0.34	0.65	0.97	1.18	1.27	1.32	1.44
	DT.	0.00	0.00	1.00	1.00	1.02	1.35	1.53	1.72	1.81	1.84	1.95
	STD.	0.00	0.00	0.00	0.00	0.15	0.57	0.74	0.91	0.36	1.06	1.34
												5078.12 AVG
LIMIT	NO.	[illegible]	[illegible]	12	40	58	81	98	107	109	111	114
	PCT.	[illegible]	0.00	0.12	0.34	0.55	0.97	1.29	1.52	1.61	1.67	1.79
	DT.	[illegible]	0.00	1.00	1.95	1.21	1.49	1.65	1.79	1.85	1.88	1.96
	STD.	[illegible]	0.00	0.16	0.22	0.40	0.72	0.87	1.01	1.05	1.12	1.34
												4377.95 AVG
A.S.		[illegible]	[illegible]	123.33	86.48	61.90	46.54	37.48	33.81	32.51	31.73	30.16

TABLE B-69

PARAMETER INTERACTION OFF TAIL
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T LIMIT

Y PARAMETER LT-DBT — X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	0	0	0	0	0	2
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												13519.12 AVG
2.00	NO.	0	0	0	0	0	0	0	0	1	2	4
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.09
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	2.75
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.83
												12074.07 AVG
4.50	NO.	0	0	0	0	2	2	4	5	8	9	11
	PCT.	0.00	0.00	0.00	0.00	0.02	0.02	0.04	0.05	0.08	0.10	0.19
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.25	1.28	1.75	1.44	2.18
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.48	0.43	0.68	2.29
												9682.64 AVG
8.00	NO.	0	0	0	2	4	5	9	11	13	13	15
	PCT.	0.00	0.00	0.00	0.02	0.04	0.06	0.10	0.13	0.17	0.19	0.29
	DT.	0.00	0.00	0.00	1.00	1.25	1.40	1.44	1.45	1.62	1.85	2.40
	STD.	0.00	0.00	0.00	0.00	0.43	0.49	0.68	0.78	1.15	1.41	2.47
												8046.65 AVG
12.50	NO.	0	0	0	2	4	8	13	15	16	17	18
	PCT.	0.00	0.00	0.00	0.02	0.04	0.09	0.14	0.18	0.22	0.26	0.35
	DT.	0.00	0.00	0.00	1.00	1.25	1.38	1.38	1.47	1.75	1.88	2.44
	STD.	0.00	0.00	0.00	0.00	0.43	0.48	0.62	0.72	1.09	1.37	2.52
												7499.83 AVG
18.00	NO.	0	0	0	3	6	14	18	21	22	24	25
	PCT.	0.00	0.00	0.00	0.02	0.06	0.14	0.21	0.25	0.30	0.34	0.43
	DT.	0.00	0.00	0.00	1.00	1.17	1.21	1.44	1.48	1.68	1.75	2.16
	STD.	0.00	0.00	0.00	0.00	0.37	0.41	0.68	0.79	1.14	1.36	2.29
												6820.18 AVG
24.50	NO.	0	0	0	4	9	15	19	22	23	25	26
	PCT.	0.00	0.00	0.00	0.03	0.09	0.17	0.24	0.28	0.33	0.37	0.46
	DT.	0.00	0.00	0.00	1.00	1.22	1.40	1.58	1.59	1.78	1.84	2.23
	STD.	0.00	0.00	0.00	0.00	0.42	0.61	0.94	1.03	1.35	1.54	2.36
												6460.26 AVG
32.00	NO.	0	0	0	4	9	16	19	22	23	25	26
	PCT.	0.00	0.00	0.00	0.03	0.09	0.18	0.25	0.29	0.34	0.38	0.47
	DT.	0.00	0.00	0.00	1.00	1.22	1.38	1.63	1.64	1.53	1.88	2.27
	STD.	0.00	0.00	0.00	0.00	0.42	0.60	0.93	1.02	1.34	1.53	2.35
												6413.22 AVG
40.50	NO.	0	0	0	4	10	17	20	23	25	27	28
	PCT.	0.00	0.00	0.00	0.03	0.10	0.19	0.26	0.30	0.36	0.40	0.49
	DT.	0.00	0.00	0.00	1.00	1.20	1.41	1.65	1.65	1.90	1.85	2.21
	STD.	0.00	0.00	0.00	0.00	0.40	0.60	0.91	1.00	1.38	1.48	2.27
												6309.47 AVG
50.00	NO.	0	0	1	6	12	19	22	25	27	29	30
	PCT.	0.00	0.00	0.01	0.05	0.11	0.21	0.28	0.32	0.38	0.42	0.51
	DT.	0.00	0.00	1.00	1.00	1.17	1.37	1.59	1.60	1.74	1.79	2.13
	STD.	0.00	0.00	0.00	0.00	0.37	0.58	0.89	0.98	1.26	1.45	2.22
												6140.21 AVG
LIMIT	NO.	0	2	6	13	28	25	28	31	34	37	38
	PCT.	0.00	0.02	0.06	0.11	0.26	0.30	0.37	0.41	0.47	0.52	0.61
	DT.	0.00	1.00	1.00	1.06	1.25	1.48	1.64	1.65	1.74	1.76	2.03
	STD.	0.00	0.00	0.00	0.27	0.43	0.70	0.93	1.00	1.22	1.36	2.03
												5466.27 AVG
	AVG.	0.0	163.45	134.95	94.74	64.54	48.43	40.49	37.38	34.65	32.86	28.02

TABLE B-70

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 18.00

Y PARAMETER LT-D3T

X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	1	4	6	9	10	10	16
	PCT.	0.00	0.00	0.00	0.00	0.01	0.03	0.05	0.07	0.08	0.08	0.15
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.19
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.53
												10799.18 AVG
2.00	NO.	0	0	0	2	8	29	38	58	71	76	97
	PCT.	0.00	0.00	0.00	0.02	0.08	0.26	0.37	0.56	0.69	0.77	1.56
	DT.	0.00	0.00	0.00	1.00	1.25	1.14	1.21	1.21	1.21	1.28	2.01
	STD.	0.00	0.00	0.00	0.00	0.66	0.43	0.52	0.52	0.58	0.62	3.28
												12866.62 AVG
4.50	NO.	0	0	2	12	38	68	91	119	137	142	199
	PCT.	0.00	0.00	0.02	0.10	0.36	0.79	1.28	1.76	2.18	2.31	3.94
	DT.	0.00	0.00	1.00	1.00	1.23	1.46	1.76	1.86	1.39	2.04	2.79
	STD.	0.00	0.00	0.00	0.00	0.92	0.98	1.27	1.40	1.75	1.07	4.73
												10094.06 AVG
8.00	NO.	0	0	6	23	51	110	139	166	196	199	215
	PCT.	0.00	0.00	0.05	0.21	0.57	1.55	2.49	3.34	4.13	4.51	6.11
	DT.	0.00	0.00	1.00	1.13	1.39	1.76	2.24	2.52	2.78	2.84	3.56
	STD.	0.00	0.00	0.00	0.45	0.91	1.94	2.42	2.63	3.07	3.19	6.22
												8740.69 AVG
12.50	NO.	0	0	6	35	72	121	149	170	183	204	220
	PCT.	0.00	0.00	0.08	0.32	0.58	2.10	3.31	4.51	5.43	6.19	8.08
	DT.	0.00	0.00	1.25	1.14	1.53	2.17	2.79	3.32	3.66	3.80	4.56
	STD.	0.00	0.00	0.46	0.49	0.87	2.10	2.63	3.02	3.71	3.81	6.48
												8119.22 AVG
18.00	NO.	0	0	12	41	54	129	154	171	181	197	218
	PCT.	0.00	0.00	0.11	0.42	1.09	2.42	3.76	5.07	6.41	7.11	8.99
	DT.	0.00	0.00	1.17	1.27	1.53	2.35	3.06	3.71	4.20	4.52	5.37
	STD.	0.00	0.00	0.55	0.66	1.00	2.30	2.96	3.36	4.06	4.42	7.46
												7859.95 AVG
24.50	NO.	0	0	13	44	88	135	159	176	185	208	214
	PCT.	0.00	0.00	0.12	0.49	1.25	2.63	4.01	5.35	6.72	7.43	9.32
	DT.	0.00	0.00	1.15	1.39	1.77	2.44	3.16	3.81	4.32	4.66	5.46
	STD.	0.00	0.00	0.53	0.71	1.13	2.40	3.12	3.52	4.18	4.52	7.46
												7704.11 AVG
32.00	NO.	0	0	16	47	92	141	166	183	202	206	220
	PCT.	0.00	0.00	0.14	0.54	1.31	2.72	4.12	5.48	6.38	7.59	9.58
	DT.	0.00	0.00	1.13	1.45	1.78	2.42	3.11	3.75	4.27	4.62	5.41
	STD.	0.00	0.00	0.46	0.74	1.12	2.36	3.07	3.48	4.13	4.53	7.48
												7640.02 AVG
40.50	NO.	0	1	20	53	100	151	176	195	214	218	232
	PCT.	0.00	0.01	0.18	0.59	1.37	2.80	4.21	5.59	7.00	7.71	9.62
	DT.	0.00	1.00	1.10	1.40	1.72	2.32	2.99	3.59	4.10	4.43	5.19
	STD.	0.00	0.00	0.44	0.71	1.10	2.31	3.02	3.44	4.10	4.58	7.28
												7583.71 AVG
50.00	NO.	0	1	20	53	101	153	178	197	216	221	235
	PCT.	0.00	0.01	0.18	0.60	1.40	2.83	4.24	5.63	7.04	7.76	9.66
	DT.	0.00	1.00	1.10	1.42	1.73	2.32	2.98	3.58	4.08	4.48	5.15
	STD.	0.00	0.00	0.44	0.74	1.10	2.38	3.01	3.42	4.08	4.48	7.24
												7565.76 AVG
LIMIT	NO.	0	1	21	54	102	154	180	199	218	223	237
	PCT.	0.00	0.01	0.18	0.61	1.41	2.85	4.26	5.66	7.07	7.79	9.78
	DT.	0.00	1.00	1.10	1.41	1.74	2.32	2.97	3.56	4.06	4.38	5.13
	STD.	0.00	0.00	0.43	0.73	1.14	2.35	3.04	3.44	4.09	4.49	7.23
												7550.95 AVG
	AVG.	[illegible]	59.77	19.71	15.56	12.76	10.28	9.44	9.06	8.31	8.87	7.96

TABLE B-71

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 36.00

TAPE NO. 1

Y PARAMETER LT-DOT / X PARAMETER RANGE

Y		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	1	2	3	6	6	6	6
	PCT.	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.05	0.05	0.05	0.05
	DT.	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												4291.56 AVG
2.00	NO.	0	0	0	0	4	20	27	36	38	39	42
	PCT.	0.00	0.00	0.00	0.00	0.03	0.22	0.32	0.52	0.57	0.57	0.63
	DT.	0.00	0.00	0.00	0.00	1.00	1.35	1.48	1.81	1.97	1.85	1.88
	STD.	0.00	0.00	0.00	0.00	0.00	0.65	0.92	1.88	1.44	1.82	1.79
												5557.72 AVG
4.50	NO.	0	0	1	7	20	48	73	84	104	108	124
	PCT.	0.00	0.00	0.01	0.06	0.16	0.59	1.12	1.53	1.91	2.04	2.36
	DT.	0.00	0.00	1.00	1.14	1.15	1.54	1.92	2.29	2.30	2.36	2.39
	STD.	0.00	0.00	0.00	0.35	0.36	0.91	1.38	1.87	1.79	1.84	2.01
												6370.79 AVG
8.00	NO.	0	0	1	23	54	88	121	145	176	192	221
	PCT.	0.00	0.00	0.01	0.21	0.54	1.27	2.12	2.98	3.49	4.28	5.08
	DT.	0.00	0.00	1.00	1.13	1.26	1.81	2.20	2.57	2.74	2.79	2.80
	STD.	0.00	0.00	0.00	0.34	0.55	1.09	1.71	2.12	2.22	2.26	2.37
												6566.07 AVG
12.50	NO.	0	0	4	42	89	135	181	211	248	279	320
	PCT.	0.00	0.00	0.03	0.41	0.99	1.95	3.18	4.22	5.39	6.03	7.17
	DT.	0.00	0.00	1.00	1.21	1.39	1.81	2.15	2.51	2.72	2.71	2.81
	STD.	0.00	0.00	0.00	0.46	0.78	1.24	1.66	2.11	2.35	2.33	2.42
												5473.62 AVG
18.00	NO.	0	0	11	54	114	168	220	252	298	338	398
	PCT.	0.00	0.00	0.09	0.60	1.36	2.47	3.77	5.04	6.26	7.08	8.50
	DT.	0.00	0.00	1.00	1.39	1.49	1.85	2.15	2.51	2.70	2.62	2.73
	STD.	0.00	0.00	0.00	0.68	0.83	1.25	1.60	2.06	2.31	2.27	2.34
												6367.07 AVG
24.50	NO.	0	0	18	78	152	214	265	299	339	389	442
	PCT.	0.00	0.00	0.14	0.80	1.71	2.94	4.29	5.59	6.84	7.69	9.15
	DT.	0.00	0.00	1.00	1.28	1.41	1.72	2.03	2.34	2.53	2.48	2.59
	STD.	0.00	0.00	0.00	0.60	0.76	1.15	1.52	1.97	2.22	2.19	2.27
												6154.96 AVG
32.00	NO.	0	0	22	90	158	231	287	320	359	409	463
	PCT.	0.00	0.00	0.18	0.90	1.90	3.16	4.57	5.90	7.14	8.00	9.48
	DT.	0.00	0.00	1.00	1.26	1.42	1.71	1.99	2.31	2.49	2.45	2.57
	STD.	0.00	0.00	0.00	0.61	0.77	1.15	1.49	1.95	2.19	2.17	2.24
												6070.36 AVG
40.50	NO.	0	2	25	96	174	241	297	330	368	418	472
	PCT.	0.00	0.02	0.22	0.99	2.02	3.32	4.75	6.09	7.33	8.19	9.68
	DT.	0.00	1.00	1.08	1.29	1.45	1.73	2.00	2.31	2.50	2.45	2.57
	STD.	0.00	0.00	0.27	0.68	0.83	1.16	1.49	1.94	2.18	2.16	2.24
												5997.27 AVG
50.00	NO.	0	5	29	99	179	244	300	334	372	422	476
	PCT.	0.00	0.04	0.26	1.04	2.09	3.40	4.83	6.16	7.42	8.28	9.79
	DT.	0.00	1.00	1.14	1.31	1.46	1.75	2.02	2.32	2.50	2.46	2.58
	STD.	0.00	0.00	0.34	0.69	0.83	1.16	1.49	1.93	2.17	2.15	2.22
												5974.84 AVG
LIMIT	NO.	1	6	31	100	180	245	302	337	377	427	482
	PCT.	0.01	0.05	0.29	1.07	2.15	3.53	4.96	6.34	7.60	8.45	9.99
	DT.	1.00	1.00	1.16	1.34	1.58	1.80	2.06	2.36	2.53	2.48	2.60
	STD.	0.00	0.00	0.37	0.70	0.89	1.26	1.55	1.96	2.19	2.17	2.24
												5941.55 AVG
	AVG.	146.4[illegible]	57.19	31.21	19.96	17.75	16.13	13.97	12.96	12.07	11.78	11.56

TABLE B-72

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 54.00

Y PARAMETER LT-DRT

X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	[illegible]	0	0	0	0	1	3	5	7	7	8
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.06	0.06	0.06
	DT.	[illegible]	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												5926.03 AVG
2.00	NO.	[illegible]	0	0	0	3	18	40	56	65	73	79
	PCT.	[illegible]	0.00	0.00	0.00	0.02	0.14	0.42	0.74	0.99	1.05	1.21
	DT.	[illegible]	0.00	0.00	0.00	1.00	1.00	1.32	1.66	1.71	1.79	1.91
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.58	0.57	1.00	1.03	1.34	1.40
												8040.26 AVG
4.50	NO.	[illegible]	0	0	2	15	55	108	128	154	163	179
	PCT.	[illegible]	0.00	0.00	0.02	0.14	0.65	1.48	2.43	3.09	3.50	3.97
	DT.	[illegible]	0.00	0.00	1.00	1.13	1.47	1.86	2.38	2.51	2.69	2.70
	STD.	[illegible]	0.00	0.00	0.00	0.34	0.71	1.22	1.92	2.87	2.52	2.80
												7514.01 AVG
8.00	NO.	[illegible]	0	3	9	39	84	128	161	197	213	240
	PCT.	[illegible]	0.00	0.02	0.10	0.40	1.27	2.71	4.11	5.37	6.15	7.32
	DT.	[illegible]	0.00	1.00	1.33	1.28	1.89	2.65	3.20	3.60	3.62	3.53
	STD.	[illegible]	0.00	0.00	0.47	0.50	1.96	2.01	2.64	2.97	3.09	3.15
												7345.03 AVG
12.50	NO.	[illegible]	0	4	21	70	125	169	203	239	278	347
	PCT.	[illegible]	0.00	0.03	0.22	0.87	2.11	3.77	5.43	6.30	7.99	9.84
	DT.	[illegible]	0.00	1.00	1.33	1.56	2.11	2.79	3.35	3.62	3.60	3.86
	STD.	[illegible]	0.00	0.00	0.56	0.84	1.24	2.22	2.99	3.15	3.24	3.22
												7196.32 AVG
18.00	NO.	[illegible]	0	13	48	123	180	229	269	309	352	447
	PCT.	[illegible]	0.00	0.10	0.50	1.52	2.94	4.71	6.50	8.09	9.26	11.47
	DT.	[illegible]	0.00	1.00	1.31	1.54	2.95	2.58	3.03	3.28	3.38	3.21
	STD.	[illegible]	0.00	0.00	0.62	0.99	1.40	2.28	3.03	3.18	3.26	3.18
												6951.25 AVG
24.50	NO.	[illegible]	1	16	69	148	211	265	305	348	392	494
	PCT.	[illegible]	0.01	0.14	0.68	1.90	3.30	5.15	6.98	8.41	9.86	12.19
	DT.	[illegible]	1.00	1.00	1.23	1.53	1.96	2.43	2.87	3.18	3.15	3.09
	STD.	[illegible]	0.00	0.00	0.54	0.99	1.39	2.21	2.94	3.11	3.18	3.10
												6843.06 AVG
32.00	NO.	[illegible]	1	24	83	171	235	292	337	398	424	528
	PCT.	[illegible]	0.01	0.20	0.81	2.04	3.57	5.46	7.35	8.30	10.27	12.64
	DT.	[illegible]	1.00	1.34	1.22	1.49	1.98	2.34	2.73	2.37	3.04	3.00
	STD.	[illegible]	0.00	0.20	0.56	0.99	1.41	2.19	2.88	3.05	3.13	3.07
												6748.04 AVG
40.50	NO.	[illegible]	2	30	96	183	247	304	351	334	441	545
	PCT.	[illegible]	0.02	0.25	0.95	2.19	3.74	5.64	7.56	9.23	10.53	12.91
	DT.	[illegible]	1.00	1.33	1.24	1.50	1.98	2.33	2.78	2.33	2.99	2.97
	STD.	[illegible]	0.00	0.16	0.55	0.99	1.39	2.17	2.84	3.02	3.09	3.04
												6672.52 AVG
50.00	NO.	[illegible]	3	35	106	192	256	314	343	407	454	529
	PCT.	[illegible]	0.02	0.29	1.03	2.28	3.85	5.75	7.49	9.36	10.66	13.06
	DT.	[illegible]	1.00	1.33	1.22	1.49	1.86	2.30	2.45	2.40	2.94	2.93
	STD.	[illegible]	0.00	0.17	0.53	0.99	1.38	2.15	2.81	2.39	3.07	3.01
												6633.27 AVG
LIMIT	NO.	[illegible]	3	39	114	200	269	327	376	490	467	572
	PCT.	[illegible]	0.02	0.32	1.09	2.36	3.97	5.87	7.81	9.49	10.81	13.26
	DT.	[illegible]	1.00	1.33	1.20	1.48	1.85	2.25	2.60	2.93	2.90	2.91
	STD.	[illegible]	0.00	0.16	0.52	0.58	1.36	2.12	2.78	2.36	3.04	2.99
												6628.31 AVG
	AVG.	[illegible]	34.00	29.41	23.91	18.58	15.17	12.45	11.15	10.45	10.37	10.40

TABLE B-73

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 72.00

Y PARAMETER LT-DST | X PARAMETER RANGE

TAPE NO. 1

Y		1[illegible]	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	[illegible]	0	0	0	0	2	4	11	11	11	11
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.02	0.04	0.10	0.10	0.10	0.10
	DT.	[illegible]	0.00	0.00	0.00	0.00	1.00	1.25	1.09	1.09	1.09	1.09
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.43	0.29	0.29	0.29	0.29
												4743.93 AVG
2.0	NO.	[illegible]	0	0	2	4	11	29	50	55	57	68
	PCT.	[illegible]	0.00	0.00	0.02	0.03	0.09	0.31	0.61	0.69	0.71	0.91
	DT.	[illegible]	0.00	0.00	1.00	1.00	1.00	1.34	1.52	1.56	1.56	1.60
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.71	1.30	1.40	1.38	1.59
												9974.97 AVG
4.5	NO.	[illegible]	0	0	6	17	44	75	117	140	156	181
	PCT.	[illegible]	0.00	0.00	0.06	0.19	0.57	1.13	2.27	2.78	3.10	3.78
	DT.	[illegible]	0.00	0.00	1.33	1.41	1.64	1.88	2.43	2.49	2.49	2.56
	STD.	[illegible]	0.00	0.00	0.75	0.77	1.02	1.32	1.97	2.16	2.14	2.25
												7787.83 AVG
8.0	NO.	[illegible]	0	0	15	32	82	135	187	228	261	320
	PCT.	[illegible]	0.00	0.00	0.15	0.42	1.31	2.55	4.35	5.45	6.22	7.63
	DT.	[illegible]	0.00	0.00	1.27	1.63	2.00	2.36	2.91	3.08	2.98	3.10
	STD.	[illegible]	0.00	0.00	0.77	0.59	1.26	1.62	2.47	2.54	2.52	2.89
												7428.83 AVG
12.5	NO.	[illegible]	0	3	25	66	123	189	246	299	334	417
	PCT.	[illegible]	0.00	0.02	0.26	0.50	2.09	3.78	5.98	7.34	8.36	10.83
	DT.	[illegible]	0.00	1.00	1.28	1.52	2.13	2.45	3.84	3.18	3.13	3.17
	STD.	[illegible]	0.00	0.00	0.66	0.78	1.45	1.84	2.68	2.74	2.78	2.86
												7291.13 AVG
18.0	NO.	[illegible]	[illegible]	6	35	97	163	230	287	331	383	487
	PCT.	[illegible]	0.00	0.05	0.40	1.18	2.75	4.61	7.09	8.56	9.66	12.19
	DT.	[illegible]	0.00	1.00	1.43	1.53	2.11	2.51	3.09	3.24	3.16	3.14
	STD.	[illegible]	0.00	0.00	0.93	0.91	1.49	1.89	2.75	2.94	2.79	2.86
												7189.33 AVG
24.5	NO.	[illegible]	1	11	54	133	202	271	331	390	429	542
	PCT.	[illegible]	0.01	0.09	0.57	1.54	3.18	5.12	7.67	9.23	10.36	13.15
	DT.	[illegible]	1.00	1.00	1.31	1.45	1.97	2.37	2.98	3.04	3.03	2.99
	STD.	[illegible]	0.00	0.00	0.81	0.97	1.44	1.87	2.78	2.79	2.75	2.79
												7019.73 AVG
32.0	NO.	[illegible]	1	16	68	158	229	297	358	405	454	580
	PCT.	[illegible]	0.01	0.13	0.69	1.81	3.54	5.51	8.13	9.70	10.85	13.74
	DT.	[illegible]	1.00	1.00	1.28	1.44	1.94	2.33	2.85	3.00	2.99	2.97
	STD.	[illegible]	0.00	0.00	0.76	0.99	1.41	1.84	2.64	2.74	2.71	2.76
												6985.31 AVG
40.5	NO.	[illegible]	2	23	82	173	246	314	376	424	472	618
	PCT.	[illegible]	0.02	0.16	0.81	1.96	3.71	5.72	8.38	9.38	11.14	14.68
	DT.	[illegible]	1.00	1.00	1.24	1.42	1.89	2.28	2.79	2.85	2.96	2.94
	STD.	[illegible]	0.00	0.00	0.71	0.87	1.39	1.82	2.62	2.74	2.72	2.76
												6854.33 AVG
50.0	NO.	[illegible]	2	28	88	180	257	326	388	435	484	613
	PCT.	[illegible]	0.02	0.22	0.89	2.04	3.83	5.88	8.55	10.15	11.33	14.31
	DT.	[illegible]	1.00	1.00	1.26	1.42	1.87	2.26	2.76	2.72	2.93	2.92
	STD.	[illegible]	0.00	0.00	0.72	0.98	1.37	1.81	2.60	2.72	2.70	2.79
												6819.47 AVG
LIMIT	NO.	[illegible]	9	50	111	206	288	359	421	473	522	659
	PCT.	[illegible]	0.07	0.41	1.11	2.31	4.15	6.25	8.98	10.65	11.85	14.96
	DT.	[illegible]	1.00	1.02	1.25	1.40	1.81	2.18	2.67	2.92	2.84	2.84
	STD.	[illegible]	0.00	0.14	0.69	0.86	1.33	1.77	2.54	2.67	2.66	2.69
												6742.81 AVG
	AVG.	[illegible]	66.96	47.47	31.32	23.93	18.72	16.01	13.89	13.49	13.09	13.10

TABLE B-74

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS QMIN = 0.00 LAMDA = 60.00
LAMB T 90.00

Y PARAMETER LT-DBT X PARAMETER RANGE

TAPE NO. 1

Y		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT	
0.50	NO.	0	0	0	0	0	0	0	2	2	2	6	
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.05	
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												10752.17	AVG
2.00	NO.	0	0	0	2	3	7	24	38	49	63	85	
	PCT.	0.00	0.00	0.00	0.02	0.02	0.06	0.22	0.43	0.56	0.67	1.02	
	DT.	0.00	0.00	0.00	1.00	1.00	1.00	1.13	1.42	1.43	1.33	1.51	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.99	1.12	1.01	1.34	
												8245.84	AVG
4.50	NO.	0	0	1	3	11	31	71	108	144	170	204	
	PCT.	0.00	0.00	0.01	0.02	0.09	0.34	0.99	1.84	2.42	2.93	4.14	
	DT.	0.00	0.00	1.00	1.00	1.00	1.39	1.75	2.13	2.10	2.16	2.55	
	STD.	0.00	0.00	0.00	0.00	0.00	0.97	1.22	1.58	1.73	1.69	2.45	
												8183.23	AVG
8.00	NO.	0	0	1	9	30	74	135	184	239	272	334	
	PCT.	0.00	0.00	0.01	0.07	0.32	0.95	2.18	3.64	5.04	5.99	8.04	
	DT.	0.00	0.00	1.00	1.00	1.33	1.61	2.02	2.48	2.64	2.76	3.02	
	STD.	0.00	0.00	0.00	0.00	0.60	1.10	1.58	1.95	2.20	2.28	3.23	
												7716.91	AVG
12.50	NO.	0	1	2	18	56	111	175	224	298	326	404	
	PCT.	0.00	0.01	0.02	0.18	0.65	1.64	3.40	5.22	7.11	8.29	10.95	
	DT.	0.00	1.00	1.50	1.22	1.46	1.86	2.43	2.92	3.09	3.19	3.48	
	STD.	0.00	0.00	0.50	0.42	0.58	1.29	2.03	2.41	2.69	2.89	3.50	
												7476.22	AVG
18.00	NO.	0	1	4	34	90	153	223	283	350	387	472	
	PCT.	0.00	0.01	0.04	0.34	1.09	2.29	4.24	6.28	8.31	9.59	12.47	
	DT.	0.00	1.00	1.25	1.24	1.52	1.88	2.38	2.78	2.37	3.11	3.31	
	STD.	0.00	0.00	0.43	0.49	0.72	1.33	2.10	2.46	2.70	2.92	3.53	
												7231.61	AVG
24.50	NO.	0	1	7	52	117	185	254	319	395	426	518	
	PCT.	0.00	0.01	0.06	0.50	1.43	2.72	4.76	6.90	9.03	10.37	13.37	
	DT.	0.00	1.00	1.14	1.21	1.53	1.84	2.35	2.71	2.34	3.05	3.23	
	STD.	0.00	0.00	0.35	0.45	0.73	1.29	2.05	2.51	2.94	3.02	3.54	
												7088.03	AVG
32.00	NO.	0	1	13	70	143	211	281	348	412	453	550	
	PCT.	0.00	0.01	0.12	0.66	1.58	3.04	5.15	7.35	9.53	10.88	14.01	
	DT.	0.00	1.00	1.15	1.19	1.48	1.81	2.30	2.65	2.30	3.01	3.19	
	STD.	0.00	0.00	0.53	0.49	0.72	1.26	2.03	2.46	2.90	2.98	3.50	
												7069.54	AVG
40.50	NO.	0	2	19	84	162	231	300	371	434	478	587	
	PCT.	0.00	0.02	0.18	0.81	1.88	3.28	5.40	7.65	9.94	11.22	14.53	
	DT.	0.00	1.00	1.16	1.20	1.46	1.78	2.25	2.58	2.94	2.94	3.10	
	STD.	0.00	0.00	0.67	0.67	0.88	1.38	2.07	2.46	2.90	2.97	3.45	
												6990.28	AVG
50.00	NO.	0	2	22	94	178	249	321	392	456	489	616	
	PCT.	0.00	0.02	0.20	0.89	2.02	3.45	5.60	7.86	10.07	11.46	14.89	
	DT.	0.00	1.00	1.14	1.19	1.42	1.73	2.19	2.51	2.77	2.88	3.03	
	STD.	0.00	0.03	0.42	0.64	0.95	1.34	2.02	2.42	2.76	2.93	3.40	
												6973.63	AVG
LIMIT	NO.	0	7	40	122	212	283	355	429	435	538	678	
	PCT.	0.00	0.06	0.34	1.14	2.42	3.58	6.08	8.39	10.65	12.08	16.04	
	DT.	0.00	1.00	1.07	1.17	1.43	1.72	2.15	2.45	2.70	2.81	2.96	
	STD.	0.00	0.00	0.47	0.60	0.93	1.29	1.95	2.35	2.69	2.86	3.30	
												6989.81	AVG
	AVG.	0.00	56.49	45.09	34.02	28.06	22.42	18.03	15.71	14.55	13.92	15.55	

TABLE B-75

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 108.00

Y PARAMETER LT-DBT | X PARAMETER RANGE

TAPE NO. 1

Y		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	0	0	0	0	0	0	3	4	4	5	6
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.03	0.04	0.05
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												11537.95 AVG
2.00	NO.	0	0	0	0	2	2	13	21	27	29	48
	PCT.	0.00	0.00	0.00	0.00	0.02	0.02	0.14	0.25	0.30	0.32	0.44
	DT.	0.00	0.00	0.00	0.00	1.50	1.50	1.31	1.48	1.41	1.38	1.38
	STD.	0.00	0.00	0.00	0.00	0.50	0.50	0.61	0.85	0.78	0.76	0.88
												9149.78 AVG
4.50	NO.	0	0	0	2	12	27	53	78	101	112	133
	PCT.	0.00	0.00	0.00	0.02	0.13	0.30	0.68	1.25	1.58	1.75	2.17
	DT.	0.00	0.00	0.00	1.00	1.33	1.37	1.60	2.01	1.36	1.96	2.05
	STD.	0.00	0.00	0.00	0.00	0.52	0.67	0.90	1.59	1.52	1.55	1.69
												7767.68 AVG
8.00	NO.	0	0	1	8	24	58	93	139	176	205	248
	PCT.	0.00	0.00	0.01	0.08	0.34	0.82	1.65	2.82	3.70	4.25	5.25
	DT.	0.00	0.00	1.00	1.25	1.75	1.78	2.23	2.54	2.64	2.60	2.65
	STD.	0.00	0.00	0.00	0.43	0.97	1.10	1.38	2.12	2.18	2.11	2.20
												7470.72 AVG
12.50	NO.	0	0	2	20	53	98	151	207	255	298	368
	PCT.	0.00	0.00	0.02	0.19	0.66	1.39	2.60	4.13	5.42	6.28	7.66
	DT.	0.00	0.00	1.00	1.28	1.57	1.78	2.16	2.50	2.66	2.61	2.67
	STD.	0.00	0.00	0.00	0.40	0.96	1.38	1.55	2.18	2.22	2.16	2.21
												7349.18 AVG
18.00	NO.	0	0	6	31	79	130	188	247	239	345	417
	PCT.	0.00	0.00	0.05	0.29	0.93	1.88	3.26	4.95	6.42	7.29	8.95
	DT.	0.00	0.00	1.00	1.16	1.47	1.81	2.17	2.51	2.69	2.65	2.69
	STD.	0.00	0.00	0.00	0.37	0.84	1.22	1.61	2.21	2.23	2.17	2.21
												7147.81 AVG
24.50	NO.	0	0	8	51	109	166	227	285	340	387	460
	PCT.	0.00	0.00	0.06	0.46	1.28	2.31	3.76	5.53	7.05	7.95	9.66
	DT.	0.00	0.00	1.00	1.14	1.47	1.75	2.07	2.43	2.60	2.57	2.63
	STD.	0.00	0.00	0.00	0.34	0.96	1.36	1.65	2.20	2.24	2.18	2.21
												6984.74 AVG
32.00	NO.	0	1	11	71	139	198	261	317	372	419	493
	PCT.	0.00	0.01	0.10	0.65	1.59	2.71	4.20	5.99	7.53	8.44	10.19
	DT.	0.00	1.00	1.09	1.14	1.43	1.72	2.02	2.37	2.53	2.52	2.59
	STD.	0.00	0.00	0.29	0.35	0.89	1.30	1.61	2.17	2.24	2.18	2.22
												6757.21 AVG
40.50	NO.	0	1	15	77	150	214	276	332	398	435	509
	PCT.	0.00	0.01	0.13	0.70	1.70	2.89	4.41	6.20	7.78	8.70	10.48
	DT.	0.00	1.00	1.07	1.14	1.42	1.69	2.00	2.34	2.51	2.51	2.58
	STD.	0.00	0.00	0.25	0.35	0.91	1.28	1.59	2.15	2.23	2.17	2.21
												6686.86 AVG
50.00	NO.	0	1	22	91	167	230	292	349	405	493	526
	PCT.	0.00	0.01	0.15	0.83	1.88	3.09	4.60	6.42	8.00	8.93	10.73
	DT.	0.00	1.00	1.05	1.14	1.41	1.68	1.98	2.38	2.48	2.47	2.56
	STD.	0.00	0.00	0.21	0.35	0.59	1.27	1.58	2.13	2.21	2.15	2.19
												6682.39 AVG
LIMIT	NO.	1	7	42	123	293	271	333	393	450	583	577
	PCT.	0.01	0.06	0.34	1.10	2.20	3.47	5.01	6.87	8.49	9.47	11.36
	DT.	1.00	1.00	1.02	1.12	1.36	1.61	1.89	2.19	2.36	2.36	2.47
	STD.	0.00	0.00	0.15	0.35	0.83	1.20	1.53	2.07	2.15	2.10	2.15
												6509.72 AVG
	AVG.	102.83	104.14	54.75	38.69	28.86	24.88	19.94	17.30	16.00	15.67	15.24

TABLE B-76

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 126.00

Y PARAMETER LT-DOT | X PARAMETER RANGE

TAPE NO. 1

Y		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT	
0.50	NO.	0	0	0	0	0	1	3	3	3	4	5	
	PCT.	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.03	0.04	
	DT.	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												12372.14	AVG
2.00	NO.	0	0	0	1	5	7	13	18	22	25	36	
	PCT.	0.00	0.00	0.00	0.01	0.04	0.06	0.10	0.14	0.22	0.26	0.44	
	DT.	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.23	1.32	1.53	
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.73	1.04	
												17685.30	AVG
4.50	NO.	0	0	0	1	10	25	44	59	70	80	109	
	PCT.	0.00	0.00	0.00	0.01	0.13	0.30	0.53	0.74	0.33	1.14	1.75	
	DT.	0.00	0.00	0.00	1.00	1.60	1.48	1.50	1.58	1.67	1.79	2.01	
	STD.	0.00	0.00	0.00	0.00	1.02	0.85	0.99	1.28	1.31	1.37	1.70	
												12567.68	AVG
8.00	NO.	0	0	0	4	18	42	69	104	134	152	194	
	PCT.	0.00	0.00	0.00	0.04	0.25	0.70	1.17	1.84	2.45	2.91	4.09	
	DT.	0.00	0.00	0.00	1.25	1.72	2.10	2.13	2.21	2.29	2.39	2.64	
	STD.	0.00	0.00	0.00	0.43	1.28	1.94	2.04	2.04	1.33	2.11	2.47	
												10714.54	AVG
12.50	NO.	0	0	0	9	39	73	113	159	204	235	292	
	PCT.	0.00	0.00	0.00	0.10	0.49	1.21	1.92	2.85	3.74	4.49	5.98	
	DT.	0.00	0.00	0.00	1.33	1.59	2.07	2.13	2.25	2.30	2.40	2.57	
	STD.	0.00	0.00	0.00	0.67	1.03	1.82	2.04	2.02	1.30	1.98	2.25	
												9531.13	AVG
18.00	NO.	0	0	1	24	59	110	160	206	256	290	348	
	PCT.	0.00	0.00	0.01	0.23	0.91	1.69	2.60	3.66	4.68	5.54	7.14	
	DT.	0.00	0.00	1.00	1.21	1.48	1.93	2.04	2.22	2.29	2.39	2.57	
	STD.	0.00	0.00	0.00	0.50	0.56	1.57	1.91	1.99	1.39	2.89	2.60	
												8927.99	AVG
24.50	NO.	0	0	6	41	95	144	193	243	235	327	384	
	PCT.	0.00	0.05	0.05	0.39	1.11	2.11	3.08	4.21	5.28	6.17	7.85	
	DT.	0.00	0.00	1.00	1.20	1.46	1.84	2.00	2.17	2.24	2.36	2.56	
	STD.	0.00	0.00	0.00	0.45	0.83	1.48	1.86	1.95	1.38	2.06	2.55	
												8528.44	AVG
32.00	NO.	0	1	12	53	115	147	216	267	321	353	408	
	PCT.	0.00	0.01	0.10	0.49	1.28	2.35	3.35	4.53	5.63	6.54	8.24	
	DT.	0.00	1.00	1.00	1.17	1.40	1.77	1.94	2.12	2.20	2.32	2.53	
	STD.	0.00	0.00	0.00	0.42	0.80	1.41	1.79	1.90	1.34	2.02	2.53	
												8323.89	AVG
40.50	NO.	0	2	16	63	129	189	239	291	344	376	431	
	PCT.	0.00	0.02	0.13	0.56	1.44	2.59	3.62	4.81	5.33	6.85	8.58	
	DT.	0.00	1.00	1.00	1.16	1.40	1.71	1.90	2.07	2.16	2.28	2.49	
	STD.	0.00	0.00	0.00	0.41	0.53	1.39	1.76	1.88	1.52	1.99	2.50	
												8190.42	AVG
50.00	NO.	0	2	20	73	143	214	252	303	356	388	442	
	PCT.	0.00	0.02	0.16	0.65	1.56	2.74	3.77	4.98	6.11	7.03	8.78	
	DT.	0.00	1.00	1.00	1.16	1.37	1.48	1.87	2.06	2.15	2.27	2.49	
	STD.	0.00	0.00	0.00	0.40	0.40	1.38	1.75	1.89	1.34	2.01	2.52	
												8104.35	AVG
LIMIT	NO.	[illegible]	9	54	126	205	266	322	377	433	467	524	
	PCT.	[illegible]	[illegible]	0.46	1.16	2.15	3.38	4.47	5.77	6.37	7.92	9.74	
	DT.	[illegible]	[illegible]	1.07	1.15	1.31	1.58	1.74	1.92	2.02	2.12	2.33	
	STD.	[illegible]	[illegible]	0.26	0.43	0.74	1.26	1.60	1.77	1.74	1.90	2.38	
												7625.71	AVG
AVG.		[illegible]	69.59	64.59	49.47	36.55	29.19	25.48	23.20	21.59	20.44	18.70	

TABLE B-77

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 144.00

Y PARAMETER LT-DOT — X PARAMETER RANGE

TAPE NO. 1

Y		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NO.	[illegible]	0	0	0	0	0	0	1	1	1	5
	PCT.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.05
	DT.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.20
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
												10741.57 AVG
2.00	NO.	[illegible]	0	0	1	3	6	8	13	15	18	31
	PCT.	[illegible]	0.00	0.00	0.01	0.02	0.05	0.09	0.15	0.20	0.23	0.51
	DT.	[illegible]	0.00	0.00	1.00	1.00	1.00	1.38	1.46	1.67	1.61	2.06
	STD.	[illegible]	0.00	0.00	0.00	0.00	0.00	0.70	0.93	1.07	1.01	1.78
												15555.95 AVG
4.50	NO.	[illegible]	0	0	3	12	21	31	39	48	57	89
	PCT.	[illegible]	0.00	0.00	0.02	0.11	0.22	0.35	0.53	0.68	0.82	1.00
	DT.	[illegible]	0.00	0.00	1.00	1.17	1.29	1.42	1.72	1.77	1.81	2.53
	STD.	[illegible]	0.00	0.00	0.00	0.37	0.88	1.29	1.75	1.92	1.75	2.68
												13998.38 AVG
8.00	NO.	[illegible]	0	2	7	24	43	66	91	117	127	165
	PCT.	[illegible]	0.00	0.02	0.06	0.24	0.56	0.96	1.48	1.39	2.27	3.56
	DT.	[illegible]	0.00	1.00	1.14	1.25	1.43	1.62	2.04	2.13	2.24	2.78
	STD.	[illegible]	0.00	0.00	0.35	0.43	1.28	1.35	1.60	1.65	1.69	2.60
												10823.57 AVG
12.50	NO.	[illegible]	0	5	15	40	74	116	147	177	192	233
	PCT.	[illegible]	0.00	0.04	0.14	0.42	0.93	1.64	2.41	3.12	3.54	5.09
	DT.	[illegible]	0.00	1.00	1.20	1.32	1.58	1.78	2.85	2.21	2.31	2.74
	STD.	[illegible]	0.00	0.00	0.54	0.57	1.16	1.22	1.47	1.52	1.61	2.41
												9784.83 AVG
18.00	NO.	[illegible]	1	12	34	68	112	161	198	231	247	289
	PCT.	[illegible]	0.01	0.10	0.32	0.72	1.37	2.21	3.07	3.99	4.36	5.99
	DT.	[illegible]	1.00	1.00	1.18	1.32	1.54	1.72	1.94	2.11	2.21	2.60
	STD.	[illegible]	0.06	0.00	0.57	0.67	1.13	1.22	1.44	1.52	1.66	2.34
												9094.57 AVG
24.50	NO.	[illegible]	1	13	47	85	137	183	219	251	267	307
	PCT.	[illegible]	0.01	0.12	0.45	0.94	1.69	2.61	3.47	4.32	4.80	6.45
	DT.	[illegible]	1.00	1.15	1.21	1.39	1.55	1.79	1.99	2.16	2.25	2.63
	STD.	[illegible]	0.00	0.53	0.58	0.69	1.07	1.28	1.41	1.48	1.61	2.29
												8780.88 AVG
32.00	NO.	[illegible]	2	18	60	104	163	211	247	290	294	333
	PCT.	[illegible]	0.02	0.17	0.62	1.19	2.02	2.99	3.86	4.74	5.24	6.91
	DT.	[illegible]	1.00	1.17	1.30	1.43	1.55	1.78	1.96	2.12	2.23	2.40
	STD.	[illegible]	0.00	0.50	0.64	0.76	1.07	1.19	1.39	1.51	1.76	2.35
												8361.27 AVG
40.50	NO.	[illegible]	2	23	74	119	179	227	265	297	312	353
	PCT.	[illegible]	0.02	0.21	0.75	1.36	2.23	3.21	4.09	4.70	5.51	7.21
	DT.	[illegible]	1.00	1.13	1.27	1.44	1.56	1.77	1.94	2.10	2.21	2.56
	STD.	[illegible]	0.00	0.45	0.60	0.74	1.06	1.19	1.38	1.51	1.75	2.32
												8228.27 AVG
50.00	NO.	[illegible]	3	28	80	128	190	239	279	310	326	366
	PCT.	[illegible]	0.02	0.26	0.84	1.48	2.37	3.37	4.28	5.18	5.72	7.43
	DT.	[illegible]	1.00	1.14	1.31	1.45	1.56	1.77	1.92	2.09	2.28	2.54
	STD.	[illegible]	0.00	0.44	0.64	0.75	1.05	1.17	1.36	1.52	1.75	2.33
												8184.30 AVG
LIMIT	NO.	[illegible]	7	56	125	179	232	283	326	360	375	417
	PCT.	[illegible]	0.06	0.48	1.23	1.97	2.89	3.90	4.84	5.79	6.34	8.10
	DT.	[illegible]	1.00	1.07	1.23	1.38	1.56	1.73	1.86	2.02	2.12	2.43
	STD.	[illegible]	0.00	0.32	0.55	0.70	1.02	1.17	1.36	1.51	1.73	2.20
												7680.99 AVG
	AVG.	[illegible]	72.93	60.42	45.51	38.02	31.04	26.22	23.27	21.66	20.72	18.88

TABLE B-78

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMB T 162.00

Y PARAMETER LT-DBT — X PARAMETER RANGE

TAPE NO. 1

		100.00	400.00	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NB.	0	0	0	0	0	0	0	0	1	2	4
	PCT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03
	DT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												15737.00 AVG
2.00	NB.	0	0	0	1	2	6	11	15	22	24	38
	PCT.	0.00	0.00	0.00	0.01	0.02	0.05	0.09	0.12	0.18	0.22	0.50
	DT.	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.05	1.17	1.92
	STD.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.37	1.48
												17850.06 AVG
4.50	NB.	0	0	1	2	6	17	27	41	46	52	78
	PCT.	0.00	0.00	0.01	0.02	0.05	0.18	0.39	0.57	0.71	0.81	1.59
	DT.	0.00	0.00	1.00	1.00	1.00	1.35	1.81	1.73	1.33	1.94	2.84
	STD.	0.00	0.00	0.00	0.00	0.00	0.48	1.76	1.81	1.93	1.81	3.51
												13289.36 AVG
8.00	NB.	0	0	1	2	11	30	52	69	77	88	98
	PCT.	0.00	0.00	0.01	0.02	0.09	0.34	0.75	1.12	1.35	1.48	2.43
	DT.	0.00	0.00	1.00	1.00	1.00	1.43	1.81	2.03	2.19	2.31	3.11
	STD.	0.00	0.00	0.00	0.00	0.00	0.52	1.78	1.78	1.93	1.86	3.57
												11185.74 AVG
12.50	NB.	0	0	3	7	24	51	78	95	107	112	133
	PCT.	0.00	0.00	0.02	0.06	0.23	0.61	1.13	1.57	1.97	2.02	3.11
	DT.	0.00	0.00	1.00	1.43	1.21	1.51	1.82	2.67	2.19	2.26	2.93
	STD.	0.00	0.00	0.00	1.05	0.64	0.50	1.59	1.71	1.98	1.98	3.38
												10866.83 AVG
18.00	NB.	0	0	6	16	48	77	111	126	145	150	169
	PCT.	0.00	0.00	0.05	0.18	0.45	0.95	1.61	2.12	2.48	2.66	3.80
	DT.	0.00	0.00	1.00	1.38	1.19	1.55	1.82	2.08	2.14	2.22	2.82
	STD.	0.00	0.00	0.00	0.78	0.53	0.78	1.44	1.62	1.98	1.98	3.10
												9099.44 AVG
24.50	NB.	0	0	7	25	56	91	127	142	148	165	184
	PCT.	0.00	0.00	0.06	0.27	0.59	1.14	1.86	2.39	2.78	2.96	4.12
	DT.	0.00	0.00	1.00	1.36	1.28	1.57	1.83	2.11	2.17	2.25	2.80
	STD.	0.00	0.00	0.00	0.84	0.56	0.94	1.43	1.63	1.46	1.01	3.06
												8711.78 AVG
32.00	NB.	0	1	12	33	76	109	147	163	182	187	207
	PCT.	0.00	0.02	0.11	0.39	0.77	1.36	2.11	2.67	3.07	3.26	4.42
	DT.	0.00	2.00	1.17	1.29	1.26	1.57	1.80	2.05	2.12	2.18	2.68
	STD.	0.00	0.00	0.37	0.72	0.51	0.86	1.39	1.60	1.91	1.86	2.94
												8308.76 AVG
40.50	NB.		1	12	43	86	122	158	175	192	198	218
	PCT.	0.00	0.02	0.12	0.45	0.87	1.52	2.76	2.83	3.24	3.43	4.60
	DT.	0.00	2.00	1.17	1.30	1.27	1.56	1.79	2.03	2.11	2.17	2.64
	STD.	0.00	0.00	0.37	0.73	0.52	0.85	1.37	1.57	1.78	1.83	2.88
												8092.08 AVG
50.00	NB.		1	14	47	95	130	165	181	199	205	225
	PCT.	0.00	0.02	0.14	0.49	0.97	1.64	2.39	2.97	3.39	3.58	4.75
	DT.	0.00	2.00	1.21	1.32	1.28	1.56	1.81	2.06	2.14	2.19	2.64
	STD.	0.00	0.00	0.41	0.72	0.53	0.85	1.36	1.56	1.77	1.83	2.87
												7916.84 AVG
LIMIT	NB.		4	34	82	132	142	194	213	233	238	259
	PCT.	0.00	0.04	0.30	0.86	1.38	1.75	2.81	3.42	3.36	4.05	5.23
	DT.	0.00	1.25	1.59	1.24	1.31	1.59	1.91	2.01	2.08	2.13	2.53
	STD.	0.00	0.43	0.28	0.58	0.50	0.97	1.33	1.52	1.71	1.77	2.73
												7386.48 AVG
	AVG.	0.00	69.55	73.43	53.34	43.47	34.93	27.61	24.81	23.42	22.47	18.78

TABLE B-79

PARAMETER INTERACTION 360 DEGS
SUBJECT TO CONDITIONS RMIN = 0.00 LAMDA = 60.00
LAMP T LIMIT

Y PARAMETER LT-DET — X PARAMETER RANGE

TAPE NO. 1

Y		[illegible]	[illegible]	900.00	1600.00	2500.00	3600.00	4900.00	6400.00	8100.00	10000.00	LIMIT
0.50	NB.	[illegible]	[illegible]	0	0	0	0	0	0	0	0	4
	PCT.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	DT.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												13513.10 AVG
2.00	NB.	[illegible]	[illegible]	0	0	0	1	2	2	3	4	12
	PCT.	[illegible]	[illegible]	0.00	0.00	0.00	0.01	0.03	0.03	0.04	0.05	0.27
	DT.	[illegible]	[illegible]	0.00	0.00	0.00	1.00	2.00	2.00	1.47	1.50	2.03
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	0.00	1.00	1.00	0.34	0.87	2.07
												15790.95 AVG
4.00	NB.	[illegible]	[illegible]	0	0	4	4	8	10	14	15	20
	PCT.	[illegible]	[illegible]	0.00	0.00	0.05	0.06	0.12	0.16	0.20	0.26	0.53
	DT.	[illegible]	[illegible]	0.00	0.00	1.00	2.30	1.88	2.00	1.79	2.13	3.35
	STD.	[illegible]	[illegible]	0.00	0.00	0.00	1.22	1.62	1.61	1.42	1.54	3.04
												11934.41 AVG
8.00	NB.	[illegible]	[illegible]	[illegible]	3	8	10	16	19	24	24	33
	PCT.	[illegible]	[illegible]	[illegible]	0.02	0.07	0.14	0.24	0.30	0.36	0.42	0.89
	DT.	[illegible]	[illegible]	[illegible]	1.00	1.13	1.70	1.88	1.95	1.38	2.17	3.83
	STD.	[illegible]	[illegible]	[illegible]	0.00	0.33	1.70	1.49	1.50	1.51	1.75	3.09
												10639.46 AVG
12.00	NB.	[illegible]	[illegible]	[illegible]	5	8	13	21	25	29	32	39
	PCT.	[illegible]	[illegible]	[illegible]	0.04	0.10	0.19	0.31	0.38	0.45	0.53	0.94
	DT.	[illegible]	[illegible]	[illegible]	1.00	1.50	1.85	1.86	1.92	1.77	2.09	3.83
	STD.	[illegible]	[illegible]	[illegible]	0.00	0.71	1.17	1.52	1.49	1.52	1.76	3.17
												9913.54 AVG
16.00	NB.	[illegible]	[illegible]	[illegible]	6	11	20	28	33	37	42	48
	PCT.	[illegible]	[illegible]	[illegible]	0.06	0.14	0.28	0.43	0.53	0.60	0.69	1.13
	DT.	[illegible]	[illegible]	[illegible]	1.17	1.44	1.75	1.93	2.00	2.03	2.07	2.94
	STD.	[illegible]	[illegible]	[illegible]	0.37	0.44	[illegible]	1.36	1.35	1.42	1.64	3.01
												9273.32 AVG
24.00	NB.	[illegible]	[illegible]	[illegible]	9	17	24	33	38	44	49	56
	PCT.	[illegible]	[illegible]	[illegible]	0.09	0.21	0.34	0.50	0.61	0.70	0.81	1.25
	DT.	[illegible]	[illegible]	[illegible]	1.22	1.55	1.79	1.91	2.00	2.00	2.06	2.79
	STD.	[illegible]	[illegible]	[illegible]	0.42	[illegible]	1.15	1.46	1.47	1.52	1.71	2.91
												8796.23 AVG
32.00	NB.	[illegible]	[illegible]	[illegible]	11	[illegible]	28	36	41	47	53	60
	PCT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.53	0.64	0.73	0.85	1.29
	DT.	[illegible]	[illegible]	[illegible]	[illegible]	1.45	[illegible]	1.86	1.95	1.76	2.00	2.68
	STD.	[illegible]	[illegible]	[illegible]	[illegible]	0.67	[illegible]	1.44	1.43	1.49	1.66	2.84
												8622.64 AVG
40.00	NB.	[illegible]	[illegible]	[illegible]	13	24	32	40	46	54	59	66
	PCT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.57	0.69	0.81	0.92	1.36
	DT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.58	1.87	1.47	1.95	2.59
	STD.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.38	1.38	1.41	1.59	2.73
												8490.47 AVG
50.00	NB.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	47	53	61	66	73
	PCT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.64	0.75	0.87	0.98	1.43
	DT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.70	1.77	1.79	1.86	2.45
	STD.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.37	1.37	1.40	1.57	2.65
												8184.65 AVG
LIMIT	NB.	[illegible]	[illegible]	[illegible]	[illegible]	45	52	61	68	77	84	91
	PCT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.81	0.93	1.05	1.18	1.63
	DT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.46	1.71	1.71	1.76	2.24
	STD.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.29	1.30	1.33	1.46	2.45
												7437.28 AVG
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	33.46	30.56	29.31	27.82	21.47

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13. ABSTRACT

(U) The primary objective of this study is to define the dogfight environment in terms of a tracking system. The secondary objective is the apply this dogfight definition to present AI radars.

(U) This study is divided into two efforts, a determination of the primary weapon control requirements and a parameter interaction study. The purpose of the primary weapon control requirements study is to define the dogfight environment and to investigate the relationship of aircraft, tactics, weapons, and the available data base. The purpose of the parameter interaction study is to define the dogfight environment more precisely in terms of tracking loop requirements, clutter problems, and glint.

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14 KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
A I Radar						
Airborne weapon control						
Air-to-air combat						
Dogfight						

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-

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-- OBJECTIVE IS TO APPLY THIS DOGFIGHT DEFINITION TO PRESENT AI RADARS.
-- THIS STUDY IS DIVIDED INTO TWO EFFORTS, A DETERMINATION OF THE
-- PRIMARY WEAPON CONTROL REQUIREMENTS AND A PARAMETER INTERACTION
-- STUDY. THE PURPOSE OF THE PRIMARY WEAPON CONTROL REQUIREMENTS STUDY
-- IS TO DEFINE THE DOGFIGHT ENVIRONMENT AND TO INVESTIGATE THE
-- RELATIONSHIP OF AIRCRAFT, TACTICS, WEAPONS, AND THE AVAILABLE DATA
-- BASE. THE PURPOSE OF THE PARAMETER INTERACTION STUDY IS TO DEFINE
-- THE DOGFIGHT ENVIRONMENT MORE PRECISELY IN TERMS OF TRACKING LOOP
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